# Sorry, no computers



## but I can sell you a hard disk drive (well, maybe)

***Luckily there are still some folks supporting your Atari so don't give up***
***Page 6 supports your Atari with the world's oldest and best dedicated magazine ...***
***as well as the world's best PD library ....***
***as well as providing commercial software ...***

**Don't be like the guy above**
**return the favour**

## *Keep supporting Page 6*

*Page 6 Publishing's*

# NEW ATARI USER

*The Resource for the ATARI CLASSIC and the ATARI ST*

Issue 79 - November/December 1996 £2.50

## FOR THE ATARI CLASSIC



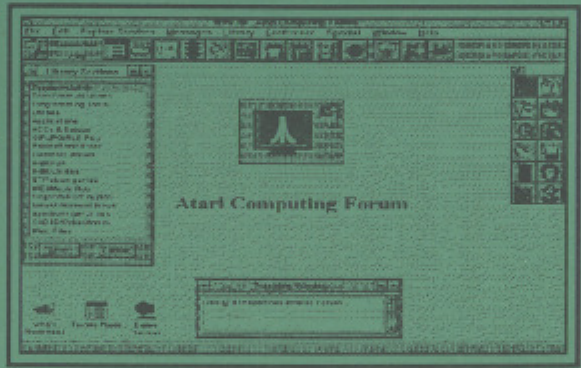
Greetings

- ***DISK DIRECTORY MOVER***
  *A classy program to give your disks the professional feel*
- ***RAM BANK UTILITIES***
  *At last something that uses the extra memory*
- ***THE BLACK BOX***
  *The ultimate hardware add-on?*

## THE WIDER SCENE

**THE INTERNET WITH AN 8-BIT**

**COMPUSERVE'S SPECIAL ATARI PAGES**




*PLUS ... THE TIPSTER ... TEXTPRO ... A TWO PLAYER GAME ... ATARI'S HEY-DAY ... and more!*

# This issue's ....

## Thanks

*Les Ellingham* puts it all together and fills up the gaps but the real thanks goes to the following who made this issue possible

*Sandy Ellingham* who takes care of all the office work, advertising and mail order

*For their regular contributions*

| | |
|---|---|
| John S Davison | Paul Rixon |
| Ann O'Driscoll | Allan J. Palmer |

*For their contributions this issue*

| | |
|---|---|
| Andy Guillaume | Ron Hoffman |
| Richard Gore | Kevin Cooke |
| Frank Walters | M. Tomlin |
| John Foskett | Dean Garraghty |
| Joel Goodwin | James Mathrick |

## APOLOGIES

I am still extremely poor in acknowledging contributions so I apologise to everyone who has sent in stuff and thought it has gone through the wormhole. The intention to reply to everyone is there but the time seems to drift by. If you have not heard, thank you and keep watching the mag, you might be surprised.

## HOW IT'S DONE

PAGE 6 shows just what you can do with your Atari. NEW ATARI USER has always been created entirely with Atari equipment, initially on the XL but more lately with a Mega ST and other stuff, who needs PC's or Macs! Hardware includes a Mega ST2 (upgraded to 4Mb), SM125 Monitor, Supra 30Mb Hard Disk, a HP Laserjet III, Citizen 124D printer, Philips CM8833 monitor, 130XE, a couple of 1050 disk drives, 850 interface, NEC 8023 printer. Principal software used is Protext and Fleet Street Publisher 3.0. Other software includes Kermit, TariTalk, Turbo Basic and various custom written programs on the XL/XE. Articles submitted on XL/XE disks are transferred across to the ST via TARITALK. Programs are coded on the XE and printed out directly for pasting in after the typesetting is completed. All major editing is done with Protext and pages are laid out with Fleet Street Publisher. Each page is output directly from Fleet Street to a HP Laserjet III which produces finished pages exactly as you see them. All that is left is to drop in the listings and photos.

Well, it's not quite as easy as that but you get the idea!

## Inspiration

*I happened to look in Q magazine and saw that Mary Chapin Carpenter had a new CD out and so had to scrape the barrel in order to get enough together to buy it. Initially a bit disappointing, being less strong than her earlier stuff, but it is growing and is on as I type. I always find that the albums I am not impressed with initially turn out to be the best. Maybe with this one. Also played this time was Robin Williamson's The Island of the Strong Door, again initially unimpressive but now, like all of his previous albums, a superb piece of song-writing and poetic composition. One song in particular, about his son, has a huge impact. Another Williamson winner!*

## CONTRIBUTIONS

***Without contributions from its readers, NEW ATARI USER would not be possible. PAGE 6 welcomes and encourages its readers to submit, articles, programs and reviews for publication. Programs must be submitted on disk or cassette, articles should wherever possible be submitted as text files on disk. We seek to encourage your participation and do not have strict rules for submissions. If something interests you, write a program or article and submit it!***

## COPYRIGHT



*Editorial address:* P.O. Box 54, Stafford, ST16 1DR, ENGLAND Tel. 01785 241153
*Editor & Publisher:* Les Ellingham - *Advertising:* Sandy Ellingham
Page layout by PAGE 6 - Printed by Dolphin Press, Fife, Scotland 01592 771652
NEW ATARI USER is published bi-monthly on the last Thursday of the month prior to cover date



**PAGE 6 PUBLISHING's**
NEW
**ATARI**
USER

**'The Magazine for the Dedicated Atari User'**

ISSN No. 0958-7705

# CONTENTS

**Issue 79 - November/December 1996**

## REGULARS



## ADVERTISERS



## PROGRAMMING



## FEATURES



## REVIEWS



# SUBSCRIPTIONS

## MAGAZINE ONLY

**Annual subscription rates (6 issues)**

| | |
|---|---|
| UK | £15.00 |
| Europe (Air Mail) | £17.00 |
| Elsewhere (Surface) | £17.00 |
| Elsewhere (Air Mail) | £23.00 |

*Overseas rates reflect only the difference in postal costs*

## DISK SUBSCRIPTION

**A disk containing all of the 8-bit programs from each issue of NEW ATARI USER is available either separately or on subscription. Single price £2.95 per disk, a disk subscription saves you almost £8 a year. Subscription rates (6 issues)**

| | |
|---|---|
| UK | £25.00 |
| Europe | £32.00 |
| Elsewhere (sea) | £32.00 |
| Elsewhere (Air) | £42.00 |

***Please make cheques payable to PAGE 6 PUBLISHING and send to PAGE 6 Publishing, P.O. Box 54, Stafford, ST16 1DR***

# Editorial

In order to complete this issue in time for Christmas I had the shortest possible time to complete it and worried that I might not be able to make it in the allotted few days. As it turned out I completed it in record time and with a day to spare! The reason was the superbly presented and written articles and programs that turned up for this issue, all submitted on disk and virtually all ready to run with very little work required. This is the sort of service I have had from John Davison over many years - his articles are always a joy to do as they almost never need any work and can be ported over to Fleet Street straight away. Now it looks as if other contributors have caught the bug and are trying to make my life a doddle!

All contributions get the same treatment, even if they are from known regulars (and even this editorial!). Anything submitted on an 8-bit disk is ported over to a master ST disk for the issue and the articles are loaded into Protext. First job is to get the format right, taking out unnecessary carriage returns, joining or splitting obvious paragraph anomalies, putting in subheadings and the like before running through the spell checker. Everything is spell checked even if it has already been done by the author. I have even been able to find the odd spelling mistake in John Davison's columns! Next job is to print out a draft and read it through to see if it makes sense to me, both from the point of view of grammar and whether what is trying to be put across is understandable. Occasionally I have to make some major changes because the intention of the author has not come through clearly (not this time!). On rare occasions I have to give up and reject something. If I can't understand it, chances are you won't be able to either!

After this read through, corrections are noted and the article is amended in Protext before being loaded into Fleet Street for layout. At this stage it is virtually complete although sometimes I have to go back and chop out parts if an article overruns by a few lines, but generally I can get everything to fit in.

Although it is a joy to get articles and program contributions almost ready to run, I don't want to put off those of you who are not the best of writers. By outlining what happens to contributions I hope you can see that any problems with spelling or grammar, or the sense of the piece, are taken care of. I have always said that the important part is sharing your ideas and enthusiasm with fellow users and you don't have to be a professional writer to get something published in New Atari User. There are no rules like those insisted on by the big publishers, just write it down (preferably on disk) and I will do the rest.

I hope that this has encouraged those of you who have not contributed before. Of course I still welcome many more articles from our regular writers and contributors!

## ANOTHER YEAR!

So we come to another year end. One or two problems during the year but we have survived yet another year thanks to your support, either as a subscriber or a contributor. New Atari User (or Page 6) has to be the longest surviving magazine for the Atari (outlasting even Atari themselves!) and possibly one of the longest running magazines for any computer. We now look forward to another year and, provided you keep sending in the contributions and keep the subscription renewals coming (as well as the odd new subscription) I shall see you all in this spot in twelve months time.

Meanwhile have a Happy Christmas and another year of Atari computing. It looks like 1997 might be a good year, certainly with more promise than the past few years. Keep reading. Keep computing!

*Les Ellingham*



XL/XE PROGRAMMING

# RAM BANK UTILITIES

**by Andy Guillaume**

If you've tried out my RAMTEST program from NAU #75 then you may notice in the article that I hinted at the possibility of using a machine code routine to access the extra Banks behind BASIC's back. This means that you don't have to worry about your program growing into the Bank switch area and it can be as big as you want. The Main Bank is switched out by the routine for whatever action you want to perform and replaced before returning to BASIC - which carries on unknowingly.

With this routine you can either Load data into any Bank from disk, Save data back onto disk from any Bank and Copy data from any Bank to any other address or vice-versa. This means that you are using the Banks for data storage only so you would usually Load a Bank at the start of your program and copy parts of it out at the relevant time.

Type in the first program and save it in LIST'ed format. i.e.

LIST "D:RAMUTILS.LST",10000,20000.

This consists of four Procedures - the setup of the Machine code routine and the Load/Save/Copy Bank routines. It's handy to save in LIST'ed format so that you can easily merge these routines with existing programs such as the Demo program (see below).

## USING THE ROUTINES

You MUST first RUN the RAMTEST program as the Bank switch table is required. If you haven't modified this program then the table starts at address 1536. First the number of Banks (at 1536) then the Reset value (at 1537) - for selecting the Main Bank again - and then the list of Bank select values (1538 onwards). The m/c routine assumes that the table starts at 1536, though you can alter this by typing in the Assembler listing and changing the value of PTABLE. The m/c routine is POKEd into page 6 from address 1561 to 1684, above the Bank switch table.

Note that in the RAM TEST DEMO program (also in NAU #75) the Banks are referenced as 0 to 4 (lines 70 and 220). 0 is the Main Bank and 4 the 4th Extra Bank. When using THESE routines the Banks are referenced as 0 to 3. 0 is Extra Bank number 1 up to 3 as the 4th Extra Bank. You do not have to consider the Main Bank as this is handled by the m/c.

Use the SETUP procedure to initialise the m/c routine and variables -see RUDEMO line 60.

The Load Bank Procedure (LBANK) does exactly what you would expect from it's title. Before jumping to this routine, using EXEC

LBANK, you should set the Destination address for the data (DEST), the Length to load (LENGTH) and which Bank to use (BANK) -see RUDEMO line 150. First the IOCB number is set (you can use any free IOCB). The same m/c routine is used for Loading/Saving and the MODE variable is set accordingly, 7 for Loading (i.e. IOCB ICCOM Command byte value). The channel is opened in BASIC (with a 4 in the OPEN statement meaning READ) then the m/c routine is called with the USR statement on line 10090.

The Save Bank Procedure follows the same lines as above. The MODE is 11 for Saving and the 8 in the OPEN statement means WRITE. Remember to first set the address from which to save (FROM), the Length to save (LENGTH) and which Bank to use (BANK) before EXEC'ing SBANK -see RUDEMO line 270.

CBANK, used to Copy data is quite simple. Just set the address from which to copy (FROM), the address to copy to (DEST), the Length to copy in bytes (LENGTH) and which Bank to use (BANK) before EXEC'ing -see RUDEMO line 200. Note that this is bidirectional, the FROM and DEST address can be used to copy into a Bank or from it to any other address in memory.

You don't have to use these procedures (apart from SETUP) but I've presented them in this form to make them simpler to understand and easier to use in your own programs.

## THE DEMO PROGRAM

The demo program shows how easy it now is to manipulate the Extra Banks. First RUN the RAMTEST program as mentioned above then (after NEW'ing of course) type in the demo program and merge in the Utility procedures

```
EX 1 REM ################################
II 2 REM #          RAM TEST            #
DE 3 REM #     by Andy Guillaume        #
HB 4 REM # ---------------------------- #
NJ 5 REM # NEW ATARI USER - NOV 1996    #
FC 6 REM ################################
NM 7 REM
GN 10 REM  SETUP VARIABLES
TT 20 PORTB=54017:CBYTE=20480:PTABLE=1536
YX 30 REM  SETUP SCREEN
CN 40 GRAPHICS %0:SETCOLOR %2,%0,%0:SETCO
   LOR %1,%0,10:POKE 752,%1
PU 50 POSITION %0,20:? "000K Bytes RAM BA
   NKS FREE (00 BANKS)"
OK 60 REM  GET RESET VALUE
XX 70 RESET=PEEK(PORTB):MASK=RESET&131
WM 80 REM  SETUP BANKS FOR TEST
YA 90 FOR CHECK=%0 TO 31:BANK=(CHECK*4)!M
   ASK:POKE PORTB,BANK:POKE CBYTE,42:NEXT
    CHECK
IH 100 REM  RESET PORTB
GM 110 POKE PORTB,RESET:POKE CBYTE,%0:NUM
   BANKS=%0
TM 120 REM  TEST BANKS
AX 130 FOR CHECK=%0 TO 31:BANK=(CHECK*4)!
   MASK:POKE PORTB,BANK
SH 140    IF PEEK(CBYTE)=42 THEN NUMBANKS=
   NUMBANKS+%1:POKE CBYTE,%0:POKE PTABLE+
   %1+NUMBANKS,BANK
NK 150    Z=LEN(STR$(NUMBANKS*16))
ID 160    POSITION %3-Z,20:? NUMBANKS*16
KC 170 NEXT CHECK
PT 180 Z=LEN(STR$(NUMBANKS))
KG 190 POSITION 29-Z,20:? NUMBANKS
II 200 REM  RESET PORTB
TM 210 POKE PORTB,RESET:POKE PTABLE,NUMBA
   NKS:POKE PTABLE+%1,RESET
```

Underline = INVERSE CHARACTERS · [ ] = CONTROL + CHARACTER · < > = INVERSE CONTROL + CHARACTER



using ENTER "D:RAMUTILS.LST" . You can now save this as RUDEMO.BAS .

Upon RUN'ing, the program displays some text and asks for a Filename for a picture file to Load. This file will be a straight 62-sector screen dump with no palette info (7680 bytes). The file is then loaded into Bank 0 (line 150). Press any key at the prompt to display the screen, Copied from Bank 0 to the SCREEN address (line 200). Hit any key to return to more text, if you now press 'S' the picture is saved to disk from Bank 0 with the same Filename (line 270) - so change disk, OK! Any other key ends the demo.

You can see that it's very easy to control these routines. Just set the correct variables and EXEC the required routine. Use line 60 to Setup the code, line 150 to Load a Bank, line 200 to Copy data and line 270 to Save a Bank.

## THE ASSEMBLER LISTING

You can see that the routine is quite simple, the main points being the IOCB usage and Pulling various numbers from the stack. The Equates at the start set the address for the FROM, DEST and LENgth bytes. These are placed in page 0 for quick access and for using Indirect Indexed Addressing. Next come the IOCB pointers to ICCOM (Command Byte), ICBAL/H (Buffer address Low/High Bytes) and ICBLL/H (Buffer length Low/High Bytes). These are all that is needed to use the IOCB.

PTABLE is set at line 160 to 1536, with RESETB pointing at the Reset value and BTABLE to the first Bank select value. Remember to change this if you move PTABLE in the RAMTEST program.

```
EX 1 REM ################################
XK 2 REM #   RAM BANK UTILITIES DEMO    #
SG 3 REM #     by Andy Guillaume        #
HB 4 REM # ---------------------------- #
NJ 5 REM # NEW ATARI USER - NOV 1996    #
FC 6 REM ################################
NM 7 REM
SY 50 DIM F$(14)
QW 60 EXEC SETUP
YE 70 REM  Info text
GF 80 GRAPHICS %0
UW 90 POSITION 8,6:? "RAM Bank Utilities
   Demo"
AB 100 POSITION %2,10:? "This program dem
   onstrates how to use"
ME 110 ? "the RAM Bank Utilities."
XF 120 ? :? "Enter the Filename to load i
   n Full"
CZ 130 ? "ie. D:MANDEL.PIC"
OQ 140 ? :INPUT "Filename";F$
JY 150 DEST=16384:LENGTH=7680:BANK=%0:EXE
   C LBANK:REM  LOAD
MB 160 ? :? "The picture has been loaded"
VN 170 ? "into Bank 0"
MF 180 ? :? "Press any key to copy it to
   the screen":GET A
NX 190 GRAPHICS 15+16:SCREEN=DPEEK(88)
ES 200 FROM=16384:DEST=SCREEN:LENGTH=7680
   :BANK=%0:EXEC CBANK:REM  COPY
YV 210 GET A:GRAPHICS %0
LM 220 POSITION %2,10:? "If you now inser
   t another disk"
FN 230 ? "and press 'S' the picture will
   be"
LU 240 ? "saved from Bank 0."
DB 250 ? :? "Any other key ends this demo
   "
HH 260 GET A:IF A<>83 THEN 280
AN 270 FROM=16384:LENGTH=7680:BANK=%0:EXE
   C SBANK:REM  SAVE
OH 280 END
```

Underline = INVERSE CHARACTERS · [ ] = CONTROL + CHARACTER · < > = INVERSE CONTROL + CHARACTER

```
AY 10000 REM  RAM Bank Utilities
HI 10010 REM  by A.Guillaume
DJ 10020 REM  NAU - November 1996
BO 10030 REM
IC 10040 -----------------------------
RJ 10050 REM  LOAD BANK
FS 10060 PROC LBANK
JK 10070   IOCB=%1:MODE=7:REM  7=LOAD DAT
A
GF 10080   OPEN #IOCB,4,%0,F$:REM  4=READ

CH 10090   X=USR(DISKLS,IOCB,DEST,LENGTH,
   BANK,MODE)
YZ 10100   CLOSE #IOCB
CY 10110 ENDPROC
HX 10120 -----------------------------
ZH 10130 REM  SAVE BANK
IT 10140 PROC SBANK
RA 10150   IOCB=%1:MODE=11:REM  11=SAVE D
ATA
LI 10160   OPEN #IOCB,8,%0,F$:REM  8=WRIT
E
FQ 10170   X=USR(DISKLS,IOCB,FROM,LENGTH,
   BANK,MODE)
AF 10180   CLOSE #IOCB
EE 10190 ENDPROC
HS 10200 -----------------------------
FA 10210 REM  COPY DATA
BE 10220 PROC CBANK
XA 10230   X=USR(COPY,BANK,FROM,DEST,LENG
   TH)
DN 10240 ENDPROC
IM 10250 -----------------------------
XI 10260 REM  SETUP CODE
CE 10270 PROC SETUP
PU 10280   PORTB=54017:PTABLE=1536
EQ 10290   RESET=PEEK(PTABLE+%1):NUMBANKS
   =PEEK(PTABLE):POKE PORTB,RESET
DY 10300   DISKLS=$0619:COPY=$065C
OX 10310   RESTORE 10360
JE 10320   FOR N=DISKLS TO DISKLS+124
JD 10330     READ B:POKE N,B
IC 10340   NEXT N
DU 10350 ENDPROC
TI 10360 DATA 104,104,104,10,10,10,10,170
   ,104,157,69,3,104,157,68,3,104,157,73,
   3
SS 10370 DATA 104,157,72,3,104,104,141,24
   ,6,32,77,6,104,104,157,66,3,32,86,228
LB 10380 DATA 173,1,211,41,3,13,1,6,141,1
   ,211,96,173,1,211,41,3,172,24,6
TC 10390 DATA 25,2,6,141,1,211,96,104,104
   ,104,141,24,6,104,133,204,104,133,203,
   104
KW 10400 DATA 133,206,104,133,205,104,133
   ,208,104,133,207,32,77,6,230,208,160,0
   ,177,203
CG 10410 DATA 145,205,230,203,208,2,230,2
   04,230,205,208,2,230,206,198,207,208,2
   36,198,208
PM 10420 DATA 208,232,76,65,6
```

**Underline = INVERSE CHARACTERS · [ ] = CONTROL + CHARACTER · < > = INVERSE CONTROL + CHARACTER**

**THE DISKLS ROUTINE:** The routine is assembled into address 1560, the first byte being a temporary store for the Bank number to use, so DISKLS therefore starts at 1561 ($0619). When the routine is called from BASIC using the USR statement, BASIC first stores the number of items following the m/c address in the statement on the stack. The items themselves are then stored in order. All items, even if only 8-bit values, are stored as 16-bit values using two bytes each. When pulling bytes off the stack, the High byte comes first then the Low. Thus the number of items is first PLA'ed and discarded, then the IOCB, DEST, LENGTH and BANK High/Low bytes are stored. (NB each IOCB consists of 16 bytes therefore you just multiply the IOCB number by 16 and put it in the X register to use as an index to whichever IOCB you're using.)

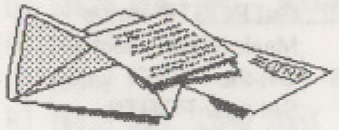
The SWITCH sub-routine is called at line 430 to switch Banks. The MODE value is then pulled from the stack and stored into ICCOM.

*continued on page 26*



```
10 ;RAM Bank Utilities
20 ;By A.Guillaume
30 ;March 1995 for NAU
40 ;
50 FROML=203
60 FROMH=FROML+1
70 DESTL=205
80 DESTH=DESTL+1
90 LENL=207
0100 LENH=LENL+1
0110 ICCOM=834      ;for LOAD/SAVE mode
0120 ICBAL=836
0130 ICBAH=837      ;for DEST address
0140 ICBLL=840
0150 ICBLH=841      ;for file LENGTH
0160 PTABLE=1536 ;Bank Table address
0170 RESETB=PTABLE+1
0180 BTABLE=RESETB+1
0190 PORTB=54017
0200 CIOV=58454
0210 *=1560
0220 BANK *=*+1
0230 DISKLS
0240 PLA            ;Number of items
0250 PLA ;IOCB HI-BYTE
0260 PLA ;IOCB LO-BYTE
0270 ASL A
0280 ASL A
0290 ASL A
0300 ASL A          ;Multiply it by 16
0310 TAX            ;transfer to X
0320 PLA
0330 STA ICBAH,X    ;DEST HI-BYTE
0340 PLA
0350 STA ICBAL,X    ;DEST LO-BYTE
0360 PLA
0370 STA ICBLH,X    ;LENGTH HI-BYTE
0380 PLA
0390 STA ICBLL,X    ;LENGTH LO-BYTE
0400 PLA            ;BANK HI-BYTE
0410 PLA            ;BANK LO-BYTE
0420 STA BANK
0430 JSR SWITCH     ;Switch Banks
0440 PLA            ;MODE HI-BYTE
0450 PLA            ;MODE LO-BYTE
0460 STA ICCOM,X
0470 JSR CIOV       ;Start CIOV
0480 RESET
0490 LDA PORTB      ;Get PORTB status
0500 AND #3         ;Mask ROM select
0510 ORA RESETB     ;OR the RESET value
0520 STA PORTB      ;Set new PORTB
0530 RTS            ;Return to BASIC
0540 SWITCH
0550 LDA PORTB      ;Get PORTB status
0560 AND #3         ;Mask ROM select
0570 LDY BANK       ;Get Bank number
0580 ORA BTABLE,Y   ;OR the BANK value
0590 STA PORTB      ;Set new PORTB
0600 RTS
0610 COPY
0620 PLA            ;Number of items
0630 PLA            ;BANK HI-BYTE
0640 PLA            ;BANK LO-BYTE
0650 STA BANK
0660 PLA
0670 STA FROMH      ;FROM HI-BYTE
0680 PLA
0690 STA FROML      ;FROM LO-BYTE
0700 PLA
0710 STA DESTH      ;DEST HI-BYTE
0720 PLA
0730 STA DESTL      ;DEST LO-BYTE
0740 PLA
0750 STA LENH       ;LENGTH HI-BYTE
0760 PLA
0770 STA LENL       ;LENGTH LO-BYTE
0780 JSR SWITCH     ;Switch Banks
0790 INC LENH
0800 LDY #0
0810 COPYLOOP
0820 LDA (FROML),Y  ;Get byte
0830 STA (DESTL),Y  ;Store byte
0840 INC FROML      ;Next FROM byte
0850 BNE SKIP1      ;End of this page?
0860 INC FROMH      ;Yes, page# +1
0870 SKIP1
0880 INC DESTL      ;Next DEST byte
0890 BNE SKIP2      ;End of this page?
0900 INC DESTH      ;Yes, page# +1
0910 SKIP2
0920 DEC LENL       ;LENGTH -1
0930 BNE COPYLOOP   ;End of this page?
0940 DEC LENH       ;Yes, page# -1
0950 BNE COPYLOOP   ;Copied all pages?
0960 JMP RESET      ;Yes, return
```

# Mailbag



## A BUMPER MAILBAG!

*Some nice long letters this time from some of our more regular correspondents to whom many thanks. Letters from the regulars are always welcome but how about some letters from those of you who haven't written before? There is still lots to talk about and don't forget - it's good to talk! (Wish I'd got as much money as Bob Hoskins for saying that!)*

***Les Ellingham***

## MORE POWER TO YOU

*Let's kick off this issue with a solution for those of you who have dead power supplies. Charlie Ayres from Wood Green in London writes* "Just a short story which may be of interest to you and all our readers. About a month ago I purchased Transdisk IV to transfer all my tapes to disk. I set up my outfit - 800XL, two 1050 drives and a 1010 recorder - only to find that one of the AC mains adaptors had ceased to function. This adaptor is Atari part number CO 60592-34/TM 7498. Rather dismayed I decided to check it out to see if I could sort out the problem, so it was out with the test meter to check the external wiring which turned out to be okay. This meant stripping the adaptor to get to the internals. Unfortunately the case is held together by four rivets which looked difficult to remove. I solved the problem by using a 13/64ths inch drill bit in the old Black and Decker. This will not drill out the rivets, which are very thin and hollow, but it does seize on the rivet and spins it fast enough to heat up the plastic so that the rivet can be pushed out of the plastic without any damage to the casing. The next step is to remove the bottom plate which reveals a transformer. I carefully removed the transformer which reveals a plastic covered object connected to two terminals. I then unsoldered one end from the transformer and removed the plastic sleeve. This reveals a fuse which is held between two end caps (fuse is 20mm 5 amp). So it was back to the spares box to see if I had a replacement fuse. Luckily I managed to find one and after replacing it I resoldered the connection to the transformer, not forgetting to replace the plastic sleeve. I then decided to test it out so connected it up to the test meter and found it was pushing out just over 11 volts. I then connected it up to the 1010 recorder and found it worked perfectly. This left me with just one problem, how to reseal the case. This turned out to be even easier than I thought by using ¼" pop rivets which fit very nicely into the holes left by the drilling out of the original rivets.

Final result one fully working power supply at a cost of one replacement fuse and four pop rivets. I hope this will be of use to fellow Atari users to repair a power supply rather than trying to find a replacement.

❢ *Charlie is obviously experienced with this sort of tinkering but this doesn't seem to be too difficult to do. Isn't it astonishing that Atari went to such lengths to hide a simple fuse? Could it be that they would rather you buy a new power supply from them rather than a fuse from someone else. Perish the thought!*

## AMS SUPPORT

*Dean Garraghty has dropped us a line about a number of matters raised in the last issue, let's kick off with his comments on AMS.* "Regarding Deborah Clarke's letter, I can appreciate her disappointment at the relative lack of Atari 8-bit support at the Lincolnshire AMS earlier this year but, as Les pointed out, we all thought that such a show was unlikely to attract many people. According to the show organisers, 1127 people visited. That is tiny compared to the Stafford shows and don't forget that not all those people are going to be there to buy Atari 8-bit stuff. Exhibiting at a show is very expensive indeed. You don't get much change out of £150 in most cases. With this being a new show we thought it was not worth the risk. Based on attendance information from the organisers, I think I made the correct decision.

## PC TO ATARI

*On the matter of communicating between computers, Dean Garraghty (who repairs PC's for a living) states:* "Regarding Mike Balderstone's letter, transferring both text and binary files between the Atari and the PC (and back again) is actually very easy. You need some special software for the PC to read and write to Atari disks, and you also need a Happy or Doubler drive (or equivalent) which is capable of formatting to 180k. You also need MyDOS. If anybody wants to transfer files, but doesn't have the kit to do it, then I can do it for you. Phone me on (01302) 855026. A small charge will be made for the service to cover costs.

Mike also mentions Basic on the PC. I would say that using Atari Basic as a stepping stone to versions of PC Basic is probably not a good idea! Visual Basic on the PC is a beast of a language and looks nothing like Basic on the Atari. VB is extremely powerful and is capable of creating commercial quality applications, but the Basic element is really just there to string together the event-driven GUI facilities. It is also a procedural version of Basic with no line numbers. You can even program recursive functions!! If you are wanting to use VB or similar on the PC, then the best way is to get a good book on VB. Most are well over 1,000 pages and can cost up to £70!"



## THE PD DEBATE

*We can always rely on some comment (and long letters!) from Brad Rogers, and most welcome it is too. Brad starts of with comments on the commercial software situation which I asked all of you to let me have your thoughts on:* "Continuing the current debate about releasing commercial software into the public domain, I offer the following.

Yes, Kevin Cooke is, strictly speaking, correct. Somebody does still own the copyright to all that software. The trouble is, who? It's often very hard to find out. Sometimes, companies return copyright to the relevant authors, sometimes not. This really only becomes an issue when a company folds, or is bought out. What happens then? It

often isn't possible to ascertain who holds the copyright. It's one of those things discussed at length on the Internet. As an example, Lucasarts have been contacted about releasing the rights to their software. Back came the answer - we no longer have the source code for this. Neither are there any binaries lying around. Furthermore they wouldn't even know where to start looking for them. In light of this what are we to do? A rhetorical question really.

Les suggested that this topic is ideally suited for discussion on the Net. As I've indicated, it already is - at length, and virtually ad-infinitum! As soon as one thread (linked series of messages) on the subject dies out, another starts. Ultimately, there is no consensus of opinion, though. It must be said that there are archives of Atari 8-bit software available for download from the Net, both PD and commercial. Whilst some companies will deplore the appearance of the commercial releases, with attitudes of companies like Lucasarts, where else can we archive this material? To be fair, the people controlling these archives are doing so for laudable reasons. Again, an example: I have a disk copy of a game, which has copy protection that I haven't bypassed. For some reason or other, the disk gets trashed. I'd like another copy of the game. Okay, I could ask in one of the Internet newsgroups to purchase a second-hand copy. Sadly, this often produces nothing, especially when one considers most 8-bitters are in the USA. This leaves me one option, that is to download a cracked copy of the game from the Net. If the software has been out of production for ten years or more, little harm can come of it. Now, if the software was available from the likes of Derek Fern's Micro Discount, then that would be a different matter entirely.

I know that in the past piracy on our favoured platform has cost companies millions (quite literally) but as has been suggested, there's little mileage in it these days.

Let me say at this point, I in no way advocate piracy. But if I've got an original copy of a piece of software, I'd like to be able to have a back-up somewhere. And so too would everyone else I suspect. Even the people running these archives on the Net request that we don't ftp (download) copies of stuff we don't already own. They're providing our back-ups for us, that's all. Nothing more, nothing less."

❢ *Interesting stuff, Brad. I don't really understand the comments from Lucasarts, or at least they are not thinking along the same lines as I am about this matter. There is no need for anyone to give up the rights to a program or pass those rights on to anyone else and, surely therefore, no need to find source code and the like. What is needed is not the permission for someone else to market a game but for the company owning the rights to state that they have no objection for a specific computer version of a game to be freely distributed among users. I can fully understand, and support, a company's desire to retain control over a particular program idea or structure as they can convert that program to other computers, or game systems, that might come along in the future. What I can't understand is what benefit to the company there is of retaining control of a specific version of the program for a computer that is no longer on sale. And what detriment is there of allowing free distribution of that version? If we take the Atari, after all that is what we are all concerned with, what is the chance of Lucasarts making any more money out of a program like Loderunner? None. What is the chance of anyone else making money out of selling the Atari version commercially? Virtually none. What then is the point of retaining full control of the Atari version of the software when nothing can be done with it? Instead of avoiding the issue by talking about missing source code, why not simply say 'We give permission for the Atari version of Loderunner (or whatever) to be freely distributed'. Nobody is going to take money away from Lucasarts, since there is no possibility of them earning any more. No other company is going to make loads of money from the program if everybody knows that they can get a copy free from the Net or from their mates. Where's the objection?*

*If I had time I might expand this into a full article but my job is to get this issue completed so let's go on to the next part of Brad's letter which continues in the same vein with some very interesting news:* "Fortunately, things are sometimes very clear cut though. Ian Chadwick (what do you mean, you don't know who he is?) is currently talking of putting Mapping The Atari on the Net somewhere. When this was mooted, people started shouting about copyright being owned by Compute! Of course what has happened is that Compute! have returned the copyright to Ian. As such, he can do whatever he likes with it".

❢ *An enlightened company! The magazine publishers seem to be the only ones who understand that things have only a limited mileage!*

## MORE ON PD

*Dean Garraghty also commented in his letter on this subject.* "Regarding the ongoing debate on making old commercial software PD, this was hammered out on the Internet years ago. There were some pretty good arguments for and against, but nobody could ever really make their minds up! Although the software is no longer in publication, somebody still owns the copyright and will do so for 50 years. Finding these people is NOT easy. All we have to go on in most cases is the name of the company who published it. Some of these were huge companies, many of whom are still in business but there were loads of one-man-operating-out-of-the-garage type enterprises and tracing these people is as good as impossible. You can't just make the software PD, because this is a violation of copyright. You have got to get permission from whoever wrote it. This is virtually impossible because of the reasons I outlined above."

## WHAT FORMAT?

*As part of his long letter regular correspondent Brad Rogers raised the matter of how to submit articles and letters.* "Something Les has talked about in NAU is article submission on disk. In fact even letters to Mailbag are taken in this form. A question - what becomes of the disk sent in? Are they returned to the authors I wonder? It's purely because of this, that I still send in my letters on paper. Well, that and the fact that 5¼" floppies are hard to come by."

❢ *Well, Brad you have touched upon something else I am not very good at! I have to admit that most of the disks just end up being filed, although I sometimes send a batch of disks to someone who has sent in a few disks over a period. It's one of those situations that should be easy to deal with but somehow never is. Mind you, after typing in a letter of this length (there's more to come!), I am sorely tempted to to work out some way of ensuring that you send in disks in future!*

## HARDWARE

*Brad's letter continues:* "Mike Balderstone requests that prices etc. of hard drive upgrades etc. are published in NAU. Phew! That's quite a tall order. There are loads of hardware possibilities available to us. As such there are too many variables to make any sensible price list. He goes on to ask what sort of drives should be sought out. Nowadays, it comes down to a choice of two types. Either a SCSI or an IDE mechanism, it depends on which drive interfacing is used.

Mike also makes mention of 3½" drives. Again, such things already exist. There are various hardware projects available, one of which allows the use of both a 5¼" and a 3½" drive from an XF551 controller. Of course, getting hold of an XF551 might prove difficult. He goes on to mention both CD-ROM and WORM drives. I believe that someone is working on a method of interfacing a CD-ROM to the Atari 8-bit machines but, apparently, it isn't easy. As for connecting a WORM drive, I've seen no mention of it, but then I haven't really looked!

Finally Mike asked about interfacing to a PC and how compatible PC and Atari disk formats are. An easy one to answer, this. Get hold of SIO2PC, which interfaces the PC to the Atari's SIO port and enables the Atari to use the PC drives etc., and vice versa. If, on the other hand, Mike wants to know about the compatibility of ST disks and MS-DOS, then it's even easier. The two formats are very similar, so little needs to be changed.

These things are all out there on the Net. I'll just have to get round to grabbing the information and sending it to NAU for publication. This shouldn't cause any problems with publication rights, because that's why it is all there in the first place. Which leads to another question. What format would Les like it submitted in? Paper, disk, or both? If a disk is satisfactory, what about the format? That is, some word processor, or plain ASCII?

Okay, I'll shut up now."

❢ *Phew, my fingers ache from typing all that in! Seriously, many thanks for writing, Brad. It would be great to get some information from the Net that we could include in future issues because, as I've said before only the minority have Net access. Best format? On disk - either ST or PC formatted to single density or 8-bit which I can port over. I use Protext which has it's own conventions but is quite versatile. If you are using another word processor, it is probably safer to stick with plain ASCII, or save copies both in ASCII and the program's own format. Stuff downloaded can just be bunged on a disk as it is and I'll sort it out.*

## DO IT LIKE THIS!

*Still not much response to our 'How Do They Do That' column but Joel Goodwin has a little bit of advice in his letter together with a couple of solutions to problems we weren't aware of! He writes* "On NAU issue disk 78, the second Motivation demo doesn't work properly. To get it to work properly, don't run it from the NAU issue disk, as it boots Turbo Basic - run it from ordinary Basic. This should clear up the demo's problems.

While I'm here, I'll try to answer a couple of James Mathrick's questions in the 'How Do They Do That?' article (issue 78). Programs can perform "audio-visual" tasks during I/O by using an immediate VBI routine. The OS automatically disables the deferred VBI during I/O to ensure that critical timing is unaffected; this means that your VBI routine must be short and sweet. It's possible to develop your own I/O routine so that something more sophisticated could be accomplished. Personally, I'm very happy with the service the OS offers! On the question of data compression, a common technique used is the "LZW" compression algorithm which looks for recurring patterns of data. I recall the 'Mega Magazine' covered this in one of their earlier issues.

Oh, one last thing. In John Foskett's Sound Selector article (issue 76) it appears that there may be a small bug. On line 40 of the demo program, it looks like the last SOUND statement should be SOUND 3,J,K,L. I recall browsing through the listing of the main program and noticing a similar discrepancy. Could John let us know if this is a bug?"

❢ *Yet again an apology from me for problems with a program on the issue disk. It really is quite difficult to know whether there are problems if they are not obvious. The author obviously knows exactly how his program is supposed to run and will notice any problems immediately. In theory programs should run with Turbo just as well as with Basic but it doesn't seem to be so.*

## HARD DISKS - A FINAL WORD

*If any of you were foolish enough to think that Atari's 'merger' with the hard disk manufacturer JTS might be their salvation, Dean Garraghty has a salutary tale.* "About a year ago I bought eight JTS 540Mb drives because I couldn't get any other brand at the time. What a BIG mistake. One by one they have died, and to make matters worse my supplier went bankrupt and I've been left to replace them at my own cost. Some just packed in completely but others developed strange faults which caused impossible to understand problems! I've asked around the industry and everybody I have spoken to has had problems. One company said they had 50 of them and 47 died within two weeks! Stay away from JTS hard drives!"

## ANSWERS TO EVERYTHING!

*It was good to hear again from Ron Hoffman in the USA who has been thinking about various letters in previous issues and has finally found the time to write them all down. If you were disappointed not to find follow-ups to some of the letters in past issues read on, it might be here!*

➡ "Back in Issue 70, M. Tomlin of Basildon in Essex wrote about viruses on the Atari Classic. You should note that the Atari Classic has to be turned off to boot another program. A virus on one program would be lost as soon as you turned the computer off so could not be transferred to another program which is what viruses are supposed to do. Because of this, programming a virus for the Atari Classic would be impossible so it would not be worthwhile. Why would anyone make one? The answer would have to be NO! On another note Daniel Baverstock in issue 72 is talking about viruses on the Atari ST and not the Atari Classic.

➡ In Issue 72, Jack Vincent asked about saving Print Shop work. Print Shop does not have a save work feature but there is a program called "Print Power" that works like Print Shop that will save your last work. It is in Atari DOS format so you can copy your work off the disk and save it till you want to use it again. It also does upper and lower case plus several different



sizes of text. There is also a program by another company that will let you transfer Print Shop icons to the Print Power format. I don't know if it was sold in the UK but if someone wants a copy I could look around for one. I use it with SpartaDOS on my hard drive and it works very nicely. On the hard drive it is very fast.

➡ In the same issue Daniel Baverstock asked about extra memory. There were several full disk copy programs that used the extra memory plus PaperClip 2.0 used up to 320K of an Atari Classic's memory. AtariWriter+, SynFile+, and SynCalc used up to 128K. Basic XE from OSS would let you program for 128K of memory. There was also a PD program that loaded and showed Koala pictures using the extra memory. It would stick a picture in the extra memory and one in main memory and then show the picture in main memory and then move the extra memory picture down to main memory and show it and load another picture up into the extra memory. It made the picture showing very fast. There are some others that I cannot think of just now but that is a few to help out with.

➡ On the subject of IBM type keyboards, also raised this issue, I have added an IBM 101 keyboard to my Atari Classic 130XE. It is a real nice addition to the Atari Classic. It is made possible by a board called a TransKey. It brings back the 1200XL function keys as the IBM's first four function keys work the same functions as the 1200XL. On another note you should say IBM PC and not just PC as that could be any personal computer which is what PC stands for. When you just say PC it could be an Atari PC or an Amiga PC or an Atari Classic PC and not just an IBM PC.

➡ In Issue 74, Brian Arnold mentioned High Density disks. "Except for the XF551, in order for an Atari 1050 or 810 drive or any of the SIO drives for the Atari Classic to format a disk, the disk must have the reinforced rim or ring in the middle of the disk. Check the disks and if they do not have this reinforced rim or ring in the middle of the disk then you should trade them with one of your Atari friends that has a XF551 drive. The XF551 used a drive mechanism which is the same as the IBM drive mechanism. *[I am not sure you are right here, Ron, as I have used disks both with and without the reinforced ring without problems. My experience is that in the early days all disks had this reinforcement and I felt it was left off later as an economy measure. Disks sold today for the PC tend to have the reinforcement but they are priced for business users who don't know any better and just pay the invoice. Ed.].* Soft sectored does not mean that the sectors are not fixed. There are pre-formatted IBM disks but they can be formatted again and in Atari format. You just need to use an XF551 or an IBM drive mechanism. I have seen an Indus GT drive format them. I think that drive would format a paper plate if it was possible!

➡ Johnny Chan talked about his Stars Database in this issue. I don't use Turbo Basic as I have the OSS Basic languages, Basic XL and Basic XE. I like them better as I don't like to reload my programming language each time I go to DOS and copy something and they have pretty much the same extra commands. OSS Basics are on cartridge. I converted your program to the OSS Basic. It is being used on a BBS here with American stars added and the Football and local British TV stars deleted. I converted it over for them. It is still the same program, just redone to work with the OSS Basics instead of Turbo Basic. Very nice program. Thanks Johnny!

➡ In Issue 75, Ray Thompson of Leeds asked about Atari Classic BBS's. There are several Atari Classic BBS's here in America. Here in Spokane we have two. The best one is the Starship Sataris. I don't know if you want to call to America for a BBS but if you make lots of money its phone number is (509) 536-7842. It supports ATASCII in 40 or 80 columns. It also supports VT52, ASCII, and ANSI. It runs on an Atari 130XE with a 190 meg hard drive. There are some in Portland, Oregon as well. In fact the one who owns the Carina BBS system for the Atari Classic runs one in Portland and would like to have someone from England test out his program there. If you think you would like to try it, then write me. On the Starship Sataris, if you take off the s on the front and back of Sataris what do you have?

➡ Dave Deeming from Gillingham in Kent wrote about AtariWriter+. I agree on that AtariWriter+! Great program. I have mine on my hard drive and modified for reading up to 8 drives. The defaults are changed to what I like and it has a purple screen which is my favourite colour plus the colour tells me it has been converted. It no longer beeps when I press L to load a file. I also took out the RS232 load routine and have the cursor speeded up. My printer is also on the list of printers in the printer list with its codes. If you would like some info on how it is done please let me know."

*Ron finished off his letter with the comment that this is the most he had typed in a long time, and no wonder! Many thanks for taking the time to put it all down on disk, Ron. I am sure that a number of readers will find some useful comment here. Ron gave permission for his address to be included if you want to write to him so here it is: Ron Hoffman, Box 10573, Spokane, WA 99209, USA*

---

*That's all for what looks like being a bumper Mailbag. We still have one or two letters for next time but of course always need more. Try writing a letter before you settle into the Christmas spirit, or if you get too bored over the Christmas holidays. Let's make the next Mailbag as interesting as this one.*

***Write to:***

**MAILBAG**
**NEW ATARI USER**
**P.O. BOX 54**
**STAFFORD**
**ST16 1TB**

HARDWARE REVIEW

# THE BLACK BOX

***In recent issues readers have raised the matter of connecting up various extra pieces of hardware to the Atari Classic. One of the solutions is the Black Box and Ron Hoffman brings you a review to help make up your mind***

The Black Box is an add-on board made by Computer Software Services (CSS) for the Atari 600XL (64kB), 800XL, and 130XE computers. CSS is owned and operated by Bob Puff. Bob Puff is the one who gave us Super ARC and Super unARC plus DiskCom and Bobterm.

The Black Box is a T-shaped board that plugs into the PBI port of the XL computer or the ECI and cartridge ports of the 130XE. Connectors for both types of computers are built into the Black Box so no adapter boards are necessary. A cartridge port is available on the board itself for 130XE users since the board plugs into the cartridge port. The board is 12 inches wide and 3 inches deep, sitting back 3 inches from your computer. It has two switches, two push-buttons, and a set of DIP switches on the top.

## LOTS OF FUNCTIONS

The Black Box provides many unique and useful functions. The four primary functions are:

RS-232 serial modem port
Parallel printer port
SASI/SCSI hard disk port
Operating System enhancements

The RS-232 port provides the full RS-232 specification signal levels for a modem or other serial device. It emulates the Atari 850 interface very closely, but goes beyond by providing 19200 baud capability. The R: driver is built in and does not use any user memory. The Black Box is the only interface to support hardware flow control. This enables owners of high speed modems (4800 baud and up) to use their modem at full speed and not worry about data loss due to a slow BBS or terminal program.

The parallel printer port interfaces to most Centronics printers. You may assign the printer number and line feed options from within the Black Box's configuration menu. The Black Box allows buffering of the data to be printed. A printer buffer allows you to quickly dump your file to be printed, then go do something else with your Atari computer as it sends the data to your printer. The Black Box will use either its own RAM (if you order the 64K version) or the 130XE (and compatibles) extended memory banks. This is all controlled by the configuration menu.

## CONNECT A HARD DISK

The hard disk port was the real reason for the Black Box. You may connect almost any hard disk controller that is SASI or SCSI compatible or drives with embedded SCSI controllers. It is totally compatible with the current versions of MyDOS and SpartaDOS (both of which have a limit of 16 megabytes per logical drive). Combine that with nine drives and that's over 130 megs available at any given time, but your total storage is virtually limitless! The Black Box is the only interface to provide a conversion toggle for drives capable of only 512 byte sectors. Many of the new 3.5 inch embedded drives have this limitation and previously were unusable. The Black Box splits each 512 byte sector into two 256 byte sectors, so your DOS will still only see what it requires. Another advantage to 512 byte mode is storage space. Many drives/controllers will give you more storage when using 512 byte sectors (some as much as 15% more).

A partition is defined as a part of the hard disk which is seen by the computer as a separate disk drive. Since many hard disks are very large, it is useful to split the drive into several individual "drives" or partitions. The Black Box goes one step further in not only letting you define the partition for each of your 9 available drives but allows you to have a list of up to 96 partitions with names. Since a partition can be very small, you can make several small partitions of 720 sectors (the same size as a standard floppy disk), and sector-copy any of your non-protected programs to these partitions. Now you can swap that partition in as drive 1 and boot your program at hard disk speed!

## JUMP OUT AND BACK

The configuration menu is the "heart" of the Black Box. You can enter the menu from wherever you are by simply pressing one of the buttons on the board. You may now edit the hard disk configuration, exchange drive numbers, enable/disable the modem and printer ports, or go into the 6502 monitor. After you are finished, pressing ESCAPE will put you right back into the program you were using and right were you were before going to the menu. No memory or screen display is destroyed by using the menu.

The 6502 monitor is very handy for machine language programmers. How often have you wondered where your program was, or what caused an apparent "lock-up"? Entering the monitor will show you all the processor registers and display the disassembly of the instruction it was about to execute when you pressed the button. Users of MAC/65's DDT

will feel right at home with commands. Zero page is left untouched!

## FASTER DISK ACCESS

The Black Box speeds operation to floppy drives if they are capable of high speed mode. XF551s, modified 1050s, and Happy 810 drive owners will experience high speed operation with virtually all programs, not just specialized utilities. RAMdisk owners will appreciate the HELP/RESET coldstart switch, allowing rebooting of the computer from any lockup, while retaining the data in the RAMdisk.

A text or graphics printer dump of your screen may be done at any time by pressing one of the buttons on the Black Box. (The graphics dump is only available for dot-matrix printers capable of graphics.)

You may write-protect ALL of your hard disks by flipping a switch on the board. This can be a real life saver when running new or unknown software. The Black Box provides disk I/O tones with separate pitches for disk reads and writes to your hard disk, so you hear what's going on. This option may be disabled from within the configuration menu.

## EXTRA OPTIONS

The Black Box Enhancer is a plug-in module for the Black Box, enhancing the printer functions and adding an instantly available, full featured sector editor. If you buy the Floppy Board the Enhancer comes with it. If not, then you can buy the Enhancer by itself.

The built in Task Master sector editor is the most powerful sector editor I have seen for the Atari Classic. It contains a sector copier featuring multiple copies, automatic formatting, and uses all available memory. Since the Black Box provides Ultra Speed data transfer to modified floppy drives, this makes for fast disk duplication.

The Task Master is not limited to only floppy disks. It can handle up to 16MB hard disk partitions (even in the sector copier mode). All three densities are supported. The sector editor allows editing (in hexadecimal or character mode) of individual sectors on a floppy or hard disk. You may search for a sequence of bytes (again in hexadecimal or character mode) and even disassemble the contents of a sector into 6502 code. Since the Black Box gives you the capability to do screen dumps to your printer, you can make hardcopies of your editing.

The Task Master sector editor provides full DOS support for MyDOS, SpartaDOS, and Atari DOS derivatives. Subdirectories are fully supported. You may link through individual files by simply moving through the directory and highlighting the file you wish to edit. 16 bit and sector map linking are supported for hard disks and 11 bit linking for floppies. It is ideal for quickly editing files and repairing damaged directories.

While you are in Basic you can list your program to your printer and your printer will print all the control and inverse characters.

## EXPANDING THE EXPANSIONS

The Floppy Board which is an add-on expansion board for the Black Box interface is the first floppy drive interface to support "high density" floppy drive mechanisms that are used in IBM type computers. Up to four floppy drive mechanisms can be connected. The Floppy Board supports not only 720kB and 1.44MB 3½ inch drives but also the popular 1.2MB and 360kB 5¼ inch drives. Also supported are the older 180kB 5¼ inch, 360kB 3½ inch and the 8 inch drives. The Floppy Board reads and writes disks in single, double and enhanced densities. Built-in to the Floppy Board is the Black Box Enhancer and a version of the Super Archiver to allow copying of protected disks to 5¼ disks or to the 3½ inch format.

Since the Floppy Board uses the parallel interface on the Atari computer, disks formatted on the Floppy Board are accessed at parallel bus speeds, providing substantial performance increases never before seen on an Atari Classic. When first booting the computer a Floppy Board drive will load MyDOS 4.50 four times faster than an Atari 1050 with ultra speed. Formatting the disk and writing MyDOS to the disk and rebooting will load MyDOS even faster.

Floppy Board drives connect to the floppy drive port on the Black Box and are configured through the Black Box configuration menu. Floppy Board drives are addressed differently than external drives (Atari drives) so they do not interfere with their operation. Through the Black Box configuration menu, you can have four external drives and four Floppy Board drives online at the same time! Included with your Floppy Board is a program to read and write to IBM and ST formatted disks. This makes the Floppy Board the best way to transfer files to or from an IBM or ST computer.

Built in to the Black Box configuration menu for the Floppy Board is another selection for formatting disks. You can format in single (SSSD), Double (SSDD), 1050 (SSED), Quad (DSDD), or High (DDHD) densities. If you need a disk formatted, you can jump into the menu and format a disk and go back to your program and nothing will be lost. Formatting a 3½" 1.4 meg disk in SpartaDOS format will give you 5751 free sectors and in MyDOS format it will give you 5746 free sectors. That is a lot of free sectors!

## FASHION ACCESSORIES

CSS offers a complete line of accessories for the Black Box. The Black Box case, a durable black plastic housing for the Black Box, sells for $39.95. Both the Black Box serial cable - a ready-to-use modem cable - and the Black Box printer cable - a ready-to-use Centronics printer cable - sell for $9.95 each. You can make your own cables as I did but for $9.95 you won't save yourself much. CSS also sells 3½" and 5¼" drives and hard drives.

The Black Box is $199.95 for the basic unit and $249.95 with an onboard 64K printer buffer. The Black Box Enhancer sells for $49.95. The Floppy Board sells for $149.95. You would have to check with CSS for the shipping costs.

CSS's address is:

*Computer Software Services*
*PO Box 17660*
*Rochester, New York*
*USA 14617*

Their phone number is (716) 429-5639 and they are there from 10 am to 5 pm EST, Monday to Friday. They do take MasterCard, Access, or Visa.

## CUSTOM SOFTWARE

I have AtariWriter+ on my hard drive and you have not seen anything until you watch how fast it loads. Eight seconds from typing AW till the main menu appears. I have AtariWriter+ modified so it looks at up to 8 drives. I also have the dictionary as one of the partitions and I used to switch it in for drive 2

# THE BLACK BOX
## continued

when I wanted to use it but I now have the proof program modified to look for the dictionary on drive 9. It checks the spelling very fast!

I have had my Black Box and Floppy Board since 1993 and I love it. If I was to say anything bad about the Black Box and the other goodies it would be on the manuals. They come on A4 sheets of paper that are stapled at the left top with one staple. There is no contents page so you have to search though the pages. Each item is well laid out so you should have no problem setting everything up but it would be nice to have a contents page so you did not have to search for things. There are lots of hard drive utilities such as a program to check flagments, a backup program, a park program and lots more.

The only thing you can't do with the drives connected to the Floppy Board is the same problem that the XF551 has and that is that you cannot flip a disk over and read or write to the back side. I just format the disk DSDD and I am still able to use all of the disk. The speed you have and things you can do, make the Black Box and Floppy Board well worth every penny. If I were you I would save my coppers and get one. Bob Puff of CSS is very much an Atari Classic fan and is always ready to help his customers and is always improving or updating his products.

I do not work for nor do I get a commission from CSS for selling their units but I like to support people who support the Atari Classic. I like what CSS's products can do for the Atari and I think you will too. ●



# DISK BONUS
# GUNTRIS
## by Richard Gore

Copyright (c) 1996, Richard Gore - distributed by Page 6

GUNTRIS is based on the classic game of Tetris (tm), but with several new twists. GUNTRIS plays horizontally, the coloured blocks move from the left of the screen to the right. Upon reaching the edge of the screen or another block the moving block will halt. Your job is to align similar blocks in rows of three or more either vertically or horizontally, once this is done those blocks will disintegrate making space for more.

The vertical starting position of each block is randomly assigned. As each block moves across the screen you may force it to drop vertically by pressing the 'SPACE BAR' on your keyboard. Beware though no upwards movement is possible!

Also on the screen you will see a coloured cross-hair/cursor. You can move this using either a joystick (in port 1), a light gun (in port 1) or an ST compatible mouse (in port 2), all selectable from the title screen using the 'SELECT' key. You use this cross-hair to shoot and remove any block(s) that you don't want, the blocks can be moving or stationary but beware you only have 80 shots (represented at the bottom of the game screen) to last you throughout the whole game! After ten line disintegrations you move up a level (indicated in the top right corner of the screen) where the action becomes faster!!!

To help you out there is a facility to display the piece that is due up next. This is accessed from the Pause Mode, see below.

**PAUSE MODE** At any time during the game you may pause the action by pressing the 'OPTION' key. Doing this will produce a mini-menu at the bottom of the screen. From this mini-menu you may press 'START' to end the game, 'SELECT' to continue or 'OPTION' to toggle the next piece display on or off.

**SCORING** The scoring is as follows:-

1 point for every block that lands.
9 points for a triple block disintegration.
16 points for a quadruple block disintegration.
25 points for a pentruple block disintegration.

Disintegrations are worth 3 points less if the next piece display is turned on.
No points are scored or lost for shooting or moving blocks.
At the Game Over stage 2 points are scored for every shot that has not been fired.

GUNTRIS was written by Richard Gore and remains his copyright, it may not be distributed in any form by anybody other than Richard Gore and by Page 6 on their issue disks. ***GUNTRIS IS NOT PUBLIC DOMAIN SOFTWARE.*** GUNTRIS was written using the QUICK programming language (available from DGS in the UK). The Quick source code for Guntris is included on this disk under the filename GUNTRIS.QIK. Please remember this is also copyrighted but you may of course examine it and alter it etc. for your own learning experience and/or review purposes. GUNTRIS features sound effects in stereo for those with Gumby compatible upgraded stereo computers. (Mono compatible for those without.)

Due to the different code required to access the various input devices the speed of gameplay is slightly different for each input device. The mouse option is just slightly slower and easier with less speed variation between levels than the other two options.

Th author had intended to make this a full commercial release but due to the current lack of interest in people buying commercial software decided the best way of getting the software out to most Atari 8-bit users was to let Page 6 release it as a bonus on their issue disks. The game is fully finished and plays without any bugs (I hope!). Richard has ideas for improving it and adding more features, like multiple line disintegrations and disintegrations after block removal but these will take a while to complete. So a second version may follow, but in the meantime enjoy GUNTRIS.....

**This great program is the BONUS on this issue's disk. If you are not a disk subscriber you can still obtain a copy for £2.95 from NEW ATARI USER, P.O. BOX 54, STAFFORD, ST16 1TB. Please make cheques payable to PAGE 6 PUBLISHING or order by telephone with your Visa or Access card on 01785 241153**

# The CLASSIC PD ZONE

*Welcome to this issue's Classic PD Zone! This time I have reviews of three more disks for you. If you're looking for some Christmas presents for the family, or simply a stocking filler or two, look no further!*

## IT'S A WORLD OF MUSIC!

***WORLD OF WONDERS VOL.1 (DS#71)*** is a music demonstration disk which pushes your 8-bit to the limits.

The disk starts off with an impressive picture of the Egyptian Pharaoh Tutankah... Tutonkah... Tutan... oh, you know the one that I mean! Anyway, along with this, a good piece of music plays whilst an oscilloscope-type display on the left-hand side of the screen displays the drum beating along with it.

A press of a key fades this out and the disk loads a music menu.

This colourful little number gives you the option of selecting 7 different tunes, or reviewing the one that appeared when the disk was first loaded.

The tunes, if I remember rightly, were all converted from the Amiga, hence are called things like "Anti-Commodore Soundtrack" and "Atari Fever"! Although each tune takes a few seconds to load,the menu can be returned to instantly by pressing the BREAK key.

With this type of disk, it's quality has to be determined by the presentation of the disk, and by the music quality. On both counts it scores full marks, with the music quality being extremely good. The tunes sound a little as if they are being played on a synthesiser but, even if you don't like this sort of thing, I'm sure that this disk will appeal to you. It really is first class!

Overall, World Of Wonders is a highly recommended purchase.

## PACMAN'S REVENGE?

***PUCMUC (#199)***, written in 1988, is clearly a PacMan clone.

The first thing to appear when you load the disk is the choice of having either digi-speech or music when you play the game. If you select the music, you then get a choice of one of three different tunes, all of which are OK.

The main game is played on a Graphics 0 screen, meaning, as you can probably guess, the graphics are not stunning. The dots of the maze are made of full stops and the PacMan character is made of a redefined letter or two!

Where Pucmuc differs from PacMan is that, rather than there being a maze and ghosts, Pucmuc is alone on a grid of dots. However, some of the dots are (randomly) missed out thus, should Pucmuc land on one of these spaces, he will be killed. The object of the game is to guide Pucmuc around the maze, eating as many dots as possible before running into such a space. For each second that you stay still and don't move (only possible when at one of the corners of the grid), your score counts down. Should this reach -20, the game will end.

The only purpose of the game is to try and beat your last score - there are no different levels (although you do get different grid designs when starting a new game) and there is no two-player mode either.

Although the music in Pucmuc is fairly good, the sampled speech is generally very poor. The "Pucmuc" speech at the start is recognisable (just!) whilst one quote, only encountered when you score 100+ points is just like gobbledegook! The only remotely acceptable phrase is the "get ready" at the start of every game. Probably best to stick to the music!!!

Minor niggles include the fact that, when the music stops, the only way to restart it is to press the RESET key and type in RUN (then press RETURN).

You may think that I'm going to say that Pucmuc isn't very good. True, it's not very good at all in the audio-visual departments but, on the other hand, the game is extremely addictive. I'm not saying that you won't forget about it after putting it away in your disk box but, on the other hand, when you do stumble across it again, you'll be playing it for ages!

If you're feeling adventurous (and perhaps you have a bit of spare change with nothing to spend it on), this is worth a try for interest's sake. However, if money is tight, take a look at the next disk...

## I'LL HAVE A BURGER AND FRIES PLEASE!

***BURGER CHEF (#204)*** is an excellent platform and ladders game, written by Canadian author Gordon Kagegamic in Turbo BASIC.

The game is a clone of the old arcade game Burger Time (a bit before my time, I think!). The object, basically, is to guide your chef along a series of platforms, on which pieces of burgers lie. When you run over the entire length of the burger piece, it drops down to the platform below. The object is to get all pieces of the burger stacked on top of each other below the lowest platform.

To hinder your progress, your chef is chased around by Willy Weeny, Fred the Egg and Mr Pickle! Shoving a handful of pepper in their face will stop them for a few seconds (although you only have three lots of pepper per level) or, alternatively, you can make a burger piece drop to a lower platform when one of these nasties is standing on it - this disposes of them temporarily but they soon reappear somewhere else on the screen!

The graphics in the game are extremely good - in fact, it could have been a commercial release and would still have been worth the money. The animation and design of the sprites is also very good, making the game feel that little bit classier! There are also 8

***by Kevin Cooke***

levels to keep you playing for a long time to come ... those levels get HARD!

What makes the game particularly unusual is that it's bursting at the seams with playability. This is not a game that you'll tire of quickly and, in my books, it's an absolute bargain at this price. Don't miss this one, whatever you do!

*Well, I'd better finish now. I would, however, like to wish all readers an extremely happy Christmas. I also hope that next year is even more exciting for the 8-bit than this year! Seeya! (Oops, echoes of Stuart Murray coming through there!!!).*

## ARE THEY REALLY ANY GOOD?!!

**BURGER CHEF (#204) 98%**
*(yep, it's really that good ... some music might have been nice but, heh, if it ain't broke then don't fix it!)*

**WORLD OF WONDERS (DS#71) 87%**
*(more tunes wouldn't have gone amiss but still excellent!)*

**PUCMUC (#199) 59%**
*(very playable - shame about the graphics and samples!)*

# RAM BANK UTILITIES continued

giving either a Load or Save command. You then just JSR CIOV (line 470) to start the Load or Save.

The RESET routine then switches back the Main Bank before doing an RTS to return to BASIC.

**SWITCHING THE BANKS:** The SWITCH routine first gets the status of PORTB, and performs an AND #3 operation. This is to Mask off the ROM select values (bits 0 and 1) - you may be thinking that this is not needed as the MASK value in the RAMTEST program should do this job. I can only say that it should, but doesn't - I eventually assumed that after doing a USR in Turbo BASIC, TB itself changes the ROM select so that your m/c routine can use the original ROM routines. This is automatically done so the AND #3 is needed to preserve the "I'm executing a m/c routine from TB" ROM select values. TB then changes back the ROM upon encountering an RTS and returning to BASIC. I could be wrong though - but the AND operation IS needed!!

The Bank number is loaded into the Y register which is used as an index into BTABLE. The value in the accumulator is logical OR'ed (ORA) with the required Bank select value and stored back into PORTB to switch Banks.

**THE COPY ROUTINE:** The Copy routine is fairly standard. After the BANK, FROM, DEST and LEN parameters have been pulled and stored, the Bank is switched. You can see that Indirect Indexed addressing is used with the Y register to get and store the bytes. The FROM and DEST addresses are altered by incrementing the relevant byte/s depending on if a page boundary has been reached. The LENgth is decremented in the same way and jumps to COPYLOOP if bytes are still to be copied. Note that LENH is increased by 1 (line 790) because during the copy loop, LENH is decremented before being checked. Thus it must always be one higher than required.

After all bytes have been copied the program then jumps to RESET and back to BASIC. ●





# TEXTPRO MACROS PART 4

***In this final article on getting the best from TextPRO's macro feature, Frank Walters give you some printing tips***

I never considered using TextPRO as my word processor until it included the feature that saves the printer equates in the configuration file. Then I could assign inverse upper case letters to send printer codes and not have to go back to my printer manual every time I wanted to print using TextPro.

In this article, I will explain how to set up a print driver for your printer. I'll give you some ideas about additional help files and their associated macros, so you can review which special inverse print letters you have defined for each printer function. I'll present a simple idea to print an entire address list on labels. Finally, I discuss printing in two columns with TextPRO and a short-cut you can use to make the last page come out in equal length columns.

## PRINT DRIVER

First, you have to get out your printer owner's manual to look up the ASCII codes for various functions. Next, decide which special inverse print key (letter) to assign for each

function you wish to use. Finally, save these codes and associated print key in your TEXTPRO.CNF file so they are available whenever you load TextPro.

The easiest way to create a print driver is by typing all 26 inverse upper case letters in the editor like this:

<A>=0
<B>=0
<C>=0 etc.

Pick which letter to use for each printer code. Try to use letters that are similar to the function selected. I use <E> for Elite; <P> for Pica; <C> for Condensed; <D> for Double Strike; <I> for Italics; <Q> for NLQ font; <R> for Reverse Linefeeds; <S> for Super and Subscript; <U> for continuous underline and <W> for double Width. I assign the remaining codes to the letters left over. If you go overboard and use up all 26 upper case letters, there are two lower case letters that have no current function and can be defined exactly like upper case: <a> and <v>.

Now look up the ASCII codes that require escape followed by another number. Replace the 0 (zero) with the ASCII number (following 27) in your printer manual. On the same line, type a description of the code so you can make up a help file using that information, for example:

<E>=77 E=77 Elite draft (12cpi)
<F>=111 F=111 Elite NLQ (12cpi)

For any function requiring three characters, just use the value immediately after the 27.

Some printer codes require three characters. My printer uses 27,45,49 to turn underline on and 27,45,48 to turn it off. Since I use 48 and 49 for several other 3rd characters, I've defined the following inverse numbers <0>=48, <1>=49, <2>=50, in my print driver. By using inverse numbers (which do not cause ESCape to be sent), TextPRO will not count the inverse numbers for computing where to break the line it prints. For example, if <U>1 is used to turn underline on, TextPRO would count the '1' as one of the 80 characters even though it is part of the printer escape sequence and would not actually print on the paper. Using <U1> instead, TextPRO ignores the inverse characters in the count, as it should. The <U> sends 27,45 while the <1> sends 49, to complete the 3 character printer code for continuous underline on.

When you finish, you may still have some unassigned letters that are equal to zero. You can always redefine them later. Now you are ready to force TextPRO to read the equates into the configuration section of memory. There are two ways to do this. You can move the cursor to the bottom of the text and use [CONTROL]_[W] (in Text Mode) to find the page and line at the cursor position. This forces the equates into the configuration section of memory as long as the cursor is below all the equates. Or you can actually print the file to get a hard copy of your equates list. This will install the equates in memory at the same time.

Before saving the configuration, make sure TextPRO is configured to send the ESCape (27) character whenever it sends the value of an inverse upper case letter. Type [CONTROL]_[;] and reply [N] to both the "ASCII CR" and "Linefeed" prompts. Reply [Y] to the "Add ESCape" prompt. Type [SELECT]_[CONTROL]_[S] to save the configuration to TEXTPRO.CNF on your default drive so it will load automatically whenever you load TextPro.

## KEYBOARD CONVENTIONS

Please refer to the last issue for details of the conventions used to show how various commands are entered into TextPRO



# HELP FILES

Now you are ready to make a print driver help file. I use the same format as other help files. What mine looks like is shown in Table 1. Print Key letters, numbers, and some other characters are inverse, along with heading and bottom line.

Notice the right side includes lower case letters (p,x) which should be inverse. They indicate the values you also need if you use printer commands on that line. This is a reminder that page width is changed and you may also need to change your margin numbers for different sized fonts.

When you finish your help file, save it to disk with your other TPHELP files. Notice the bottom line of mine is #13, so I use the filename: TPHELP.13.

Now you have to load TEXTPRO.MAX and add the macro to display the new help file. I

| TextPRO 5.0X Print Driver | | |
|---|---|---|
| Key | Panasonic 1092i | set p/x |
| A | 6 lines per inch (default) | p66 |
| B | 8 lines per inch | p88 |
| C | Compressed draft 4 OFF | x137 |
| D | Double strike ON X OFF | |
| E | Elite draft | x96 |
| F | Elite NLQ | x96 |
| I | Italics ON J OFF | |
| N | Pica NLQ | x80 |
| O | Proportional O1 ON O0 OFF | x85 |
| P | Pica draft (default) | x80 |
| Q | NLQ Q1 Courier Q2 Bold PS Q0 OFF | |
| R | Reverse Linefeed Rn/216" n=36/line | |
| S | S0 Superscript S1 Subscript | |
| T | Sub/Superscript OFF | |
| U | Underline U1 ON U0 OFF | |
| W | Double Width W1 ON W0 OFF | |
| Y | Paper-out DISABLE Z ENABLE | |
| #13 HELP>Menu START>Load Macro | | |

*Table 1: Print Driver Help Screen*

decided to use [OPTION_P] for my macro key for the print driver help file:

P<=><CTRL_G>pp<=><CTRL_Q>
TPHELP.13,E:[RETURN]

Notice the 'Goto' macro key, linking the upper case "P" to lower case "p" since you want it to work with either case.

Save TEXTPRO.MAX to your default drive and then load it into the macro buffer with [CONTROL]_[V]. Test it out by pressing [OPTION]_[P] to see the help file displayed on screen.

If you redefined some inverse numbers in your print driver, edit TPHELP.06 to reflect the new values for the inverse numbers. Load TPHELP.00 and add the macro keys to display your new help files and then save it back to disk.

# DISK MACRO HELP FILE

While on the subject of help files, I made another help file as shown in Table 2, listing all of my interactive disk macros with short descriptions.

I only included an abbreviated listing to show you how to do it. The text in the top and

| TextPRO 5.0X Macro Library | |
|---|---|
| Macro | Function |
| CARDCR CL | PS Card:Cond (17):Rgt/Left |
| CARDER EL | PS Card: Elite (12):Rgt/Left |
| CR | Remove Carriage Returns |
| DUAT | DTC DUAT flight plan |
| ENV ENV2 | Envelope PS size envelope |
| LINK | Link-load to bank [2] & [M] |
| #14 HELP>Menu START>Load Macro | |

*Table 2: Macro Help File Screen*

bottom lines is inverse. Do not put a [RETURN] at the end of the bottom line of any TPHELP file. This will retain the cursor on that line when it is displayed on screen, giving you one extra line before it scrolls the title. Save this as TPHELP.14. Add another macro key to your TEXTPRO.MAX file to display this help file. Since macros use [CONTROL]_[V] to load I use [OPTION]_[V] to read it, but [OPTION]_[M] (for Macros) would work just as easily. Use the example for [OPTION]_[P] above and substitute the new letter and change the file extension to .14 instead of .13.

# PRINTING ADDRESS LABELS

Here is a tip I worked out for my sister who had to mail 250 newsletters. She needed to print labels from her address list. This is an easy way to do it.

The address list must be a simple text file, which you can create with any word processor. Each address must have enough carriage returns to total six lines. A 3-line address should be followed by three blank lines with [RETURN] characters only. A 4-line address would be followed by two extra [RETURN] characters. Save your address list to disk.

If your list is over 200 addresses, you might consider splitting the list alphabetically, i.e. ADDRESS.AM and ADDRESS.NZ. This will keep you from filling the buffer. You can print the two files separately, using wild cards in the DOS command.

A standard 3½" x 15/16" label will permit about 30 characters per line at 10 cpi, or 36 characters at 12 cpi. Set the labels in your printer with the print head on the second line of the first label. A label will hold 5 lines at the default 6 lines/inch spacing. Use DOS to copy the address list from disk to printer, typing the source and destination like this:

D:ADDRESS.??,P:[RETURN]

That's all there is to it. Pretty simple, huh? You can send any font to the printer before copying the address file, but do not turn off the printer between installing the font and copying the file. Do not try to print the address list from TextPRO as it will set margins and send page breaks. But you can use TextPRO to configure the printer as desired using the previously described print driver commands and then exit to DOS and use the Copy command to print the address file(s).

# PRINTING TWO COLUMNS

I made a hard copy of my sister's address list for her and printed it in two-columns per page to save paper. I'll explain how to format TextPRO for two-column printing.

For an address list like the one described above, you have to make a separate file with only five lines per address. Load the 6-line list. Use [CONTROL]_[G] and type [CTRL_+] three times. (Remember to type [ESC] before the [CTRL_+] to get the special "Control" Character that looks like a bent arrow). This enters three [RETURN] characters at the "Find:" prompt. Press [RETURN] and enter two [CTRL_+] characters at the "Change:" prompt. After the global replace, your address list will have one [RETURN] character removed from each address, leaving 5-lines each. This will allow 11 addresses per page in each column. Save it under a different filename than your 6-line list.

At the top of the list, insert the following two printer format lines:

```
<?>1<!>1<l>1<r>38<t>4<b>59
<i><?>2<!>1<l>41<r>78<t>4<b>59
```

The top line is for printing the first pass. The bottom line follows an info <i> character and is not used until the second pass. With the top and bottom margins set at 4 and 59, it will allow exactly 55 printed lines, or 11 5-line addresses. No addresses will be split between columns or pages.

<?> tells TextPRO to start printing at page 1. The second line starts at page 2.

<!> tells TextPRO to skip 1 page when printing. Thus it will print all the odd numbered pages when the first format line is active (1, 3, 5 etc.).

If there is more than one file in your list, add the "goto" command for printing linked files at the end of each file except the last. Due to a bug in 4.56 and 5.0, the maximum length of the dev:filename.ext recognised by the "goto" command is 14 instead of 15. My example uses only 12:

<g>D:ADDRESS.NZ[RETURN]

Insert the paper with the top line under the print head and print the address list with [CONTROL]_[P]. When finished, roll the paper back to the original position. Insert an inverse <i> in front of the top format line. [CONTROL]_[DELETE] the <i> from the second format line. Print the second pass with [CONTROL]_[P]. It will start printing the right column with page 2 and all the even-numbered pages.

I wanted to print a footer with page numbers and a title, so I counted the total printed pages and made a new file to print just the footer line. Let us assume it is six pages. Set the paper back to the first page, clear the editor and enter a footer line like this:

<f> TITLE OF ADDRESS LIST<e>page <#>[RETURN]
<nnnnn>

The left margin of our document was set at 1 and footers ignore the left margin so I left a space after the <f> so the title would line up with the left column. Since I want to print footers on six pages, I needed to add five inverse <n> characters, to force next-page five times, for a total of six pages.

Print the 'footer' file and it will add the footer text and page numbers on your two-column document. That wasn't too difficult was it?

You can use the same principle and similar margins to print two-column text files. You might want to include <q>1 in your format lines to justify the right margins, like in magazines, although it is not necessary. When printing text files this way, the last printed page will not come out even. There is an easy way to correct this.

Print the two-column text file as explained above. Tear off the last printed page with uneven columns. Delete the two printer format lines from the top of your file with [CONTROL]_[D] and [P] twice.

Use [SELECT]_[CONTROL]_[F] to find the first few words at the top of the last page. Put the cursor on the first word and enter [SELECT]_[CONTROL]_[U] to "Delete to TOP" of text. Reply [Y]es and you will be left with only the text on the last page.

Type [CONTROL]_[R] to replace the format lines from the paste buffer. Be sure that the <i> is in front of the second line, not the first. Count the total lines on your printed last page and divide by two to find how many lines you want on each side of the page. Assume you have 84 lines and want 42 in each column. Add the top margin (4) to find line number 46. Change bottom margin to <b>46. Print the left column and reset the paper to the top. Move the <i> from the second format line to the top and print the right-hand column. Load your footer file and replace the <#> with the actual page number and remove the inverse <n>s at the end. Reset the last page and print the footer. Voila! You now have an evenly spaced last page to add to the other two-column pages of your document.

***continued on page 35***

# GET ON THE NET

***M. Tomlin is a keen Atari supporter and is willing to try and stretch his Atari to the limits, even to mixing it with the big boys on the Internet***

If you are as interested as me in the Atari and the Internet, I hope that my experiences on the Internet with just an Atari 8-Bit will prove informative. In this article I will quote from the information and instructions I have discovered from Internet service providers whom I have so far contacted like CompuServe, Demon and Europe-on-Line. There are more service providers sitting in the wings such as BT or United Artist who have lots on offer and are now ready to also to jump on the band wagon with the rest to get their slice of the cake. These other service provides do work out expensive with their charges, though, so you should bear this in mind.

Electronic communication will be the next step forward. The Royal Mail, as we know it, is now under attack from the Conservatives and if they have their way will be the next thing to be privatised. There are many other e-mail services currently available but you will have to seek out these for yourself to see if you can get a better deal for a connection (e-mail address).

## CAN YOU REALLY USE AN ATARI?

I am just a 'normal' Atari user, a HGV driver by trade and not a computer expert but I have tried to find out as much as I can about connecting my old Atari 8-Bit (not a PC computer) up to the Internet. At the very least it is possible to send and receive e-mail, and also it seems to down/upload PD software etc. which, I have been told, there is a lot of.

I have very much enjoyed reading the recent articles in New Atari User by John S Davison and Gordon Hooper, about using the Internet which have prompted this article. Their articles did not throw much light on using an 8-Bit Atari so I have tried to rectify this by looking at the Internet from an Atari 8-Bit users point of view. John Davison and Gordon Hooper it seems were using a PC and then looking very hard for access for the old Atari 8-Bit as a bonus. I decided to seek more information from the service providers to see if they could provide me with connection for just the 8-Bit Atari.

The information and advice I have received has ranged from 'You're joking, Ha, Ha, Ha' to 'What? you say an Atari 8-Bit', 'Well I myself don't know', 'Way over my head what you are trying to explain to me', 'You did say an Atari 8-Bit!!', 'What the hell is an Atari 8-Bit!!' to 'Okay I will find out for you as I am also interested myself to see what the hell an Atari 8-Bit is'. That last one was from CompuServe and well done to them, at least they have staff who like to know about the computers from the past.

## SUCCESS!

I must say now that I found CompuServe to have been the most helpful and they have even provided me with written details on how to set up the software I already have (details later) also how to sign up on-line and open an account. You can use a major credit card to pay your bills like your flexible friend, or pay by direct debit or standing order from your bank account each month. At the time of writing your first month after signing up with CompuServe is free of charge, with 10 hours on line, so you can explore the services. Thereafter it is £6.50 per month connection charge but do remember that you will also have to pay your phone bill as well to access these services. I live in Basildon, Essex, England and will have to use a London connection number, my nearest connection, to support my slow modem (1200). Yours may be a different gateway (connection) if you live somewhere else of course.

## A HELPING HAND

The following is a list of instructions I received from CompuServe to establish a terminal connection to their services. I should stress these were specifically for my circumstances as explained to CompuServe and your experience may be a little different. Of course I am not going to tell you my card numbers so have replaced them with asterisks. Here is what Compuserve told me on how to connect up for Internet access.

1. Set up your communications software to 7 bits data, 1 stop bit, even parity
2. Connect to phone number 0171 5705000 (this is a direct CompuServe access number which supports baud rates of 1200 to 28,800 (my modem is 1200 - very slow for this day and age)
3. Hit Return when you see the CONNECT 1200 message
4. At the 'Host Name:' prompt, type CIS
5. At the User ID: prompt, type ******,**** (this is my ID number so yours will be different)
6. At the password: prompt, type EXPLORE/WORLD

This will connect you to the Membership Sign up area. Next you will see prompts for a serial number and agreement number and you use the following: Agreement Number: ***** Serial Number: ********* (my issued numbers, yours will be different). You will now need to answer the questions on the screen to create a new account, and once you have successfully done so, you will be issued with your own User ID and Password. Use these the next time you log on instead of the ones above, and this will connect you to CompuServe services where you will then be able

to use the e-mail service.

If you are interested in trying this, which I hope you will, more information c
an be obtained from Compuserve's help line which I will list later.

## WHAT ABOUT THE WEB?

Please note that my (not necessarily yours) current Atari hardware/software is not capable of accessing the 'Web' as this requires a minimum of a 9600 baud modem and also a graphical software platform such as Windows, Mac or OS/2. Of course this is not possible with the old Atari 8-Bit, which now in old age will have it's limitations on the Internet.

My current Atari hardware is: 130XE/800XL's, 1050 drive, 850 Interface, and an old MicroLink modem of 1200/1200 baud which is really an old Pace Linnet. It only just falls within the baud limits required to access the Internet. If you have to buy a modem get the fastest one you can. You may not need an 850 interfaces as any interface should work okay, it is still, after all, just a serial transmission, except this time down a phone line. I cannot really say if your equipment is okay, you will have to try your own Atari setup and see how you get on.

The software I have is Mini Office II comms, DeTerm's 1.55b (850 interface version), and RSCOPE comms. I will try to stick to DeTerm as I have connected with the Cambridge University Computer with my hardware so I know it works, but I never had a ID or Password to log on so the Cambridge Computer cut me off after I could not respond to its prompts! I have now signed up with CompuServe but the first thing I have found after logging on, is it is hard to read the information sent to me by the host computer which displays 80 column text. It is very hard to read the prompts so I hope this will not be a disaster. I will let you all know how I get on next time! My first port's of call for an e-mail message will be John S Davison and Gordon Hooper just to say hello as they started me off in this new adventure in issues 75/76 of New Atari User. My e-mail address is 106202.1424@compuserve.com if you would like to drop me a line with your findings or comments.

## NOT SO HELPFUL

The other service providers I contacted for advice, like EUROPE-on-line, insisted I need a new modem of at least 9600 baud to access their services, but with CompuServe it is possible with my old hardware even down to a slow baud rate of 1200, the lowest possible today. Demon Internet have to date not replied to my request (via snail mail) for information on this subject. It seems they cost the most for connection and reading between the lines they are really only interested in commercial users, and PC's. Their fees are a lot higher but give you unlimited access and use of their systems for a monthly set rate. They are probably now laughing in their tea cups to think that an Atari 8-Bit user wants to use the Internet.

I have noticed that Derek Fern (Micro Discount) uses Demon Internet. I hope I can encourage Derek and also I think maybe Dean Garraghty of DGS whom must have had a go at this as well to write about their experiences. Perhaps they could add some comments etc. on what they are using, and what I have said. Come on guy's, you have an e-mail address, let us all know how you have got on with the Net.

## TAKING IT FURTHER

If you wish to have a go, telephone Compuserve's free support number - 0800 000400 - for advice and connection numbers for yourself (if you live in England). Outside England you will have to find your own local number. Please let us all know how you get on if you try, via New Atari User. I will let you know how I get on and what I find I can do with the Atari.

My gut feeling is I will not be on it long, at least not with the old Atari. From what I have seen so far it looks very interesting but you do need a PC running Windows. I fear I shall soon get frustrated with the limits of the old Atari in using the Internet and give up, but you never know I have a month's free use and will see how far the Atari can get me. ●



# TURBO TIPS

### by John Foskett

Further to Robert De Letter's tip for getting keyboard responses using....

```
REPEAT:GET KEY:A=INSTR("YNA",CHR$(KEY)):UNTIL A
```

If UINSTR (Universal INSTR) is used instead of INSTR then the corresponding lower case and inverse characters would automatically be catered for as well. Therefore the statement becomes....

```
REPEAT:GET KEY:A=UINSTR("YNA",CHR$(KEY)):UNTIL A
```

The above routine is basically a loop which relies on UINSTR finding a match between the character of the key pressed and a character in the string (i.e. Y, N or A) in order to exit. The REPEAT-UNTIL loop will only exit when the condition following UNTIL is met, in this case when the variable 'A' is NOT zero. 'UNTIL A' is a logical statement representing 'UNTIL A>0'.

Further to the follow up of GOTO 100+A to goto lines 101, 102, 103, etc. It would be better to use....

```
GOTO 100+A*10
```

to goto lines 110, 120, 130, etc. so that a program listing can easily be renumbered (using RENUM) in increments of 10 in the normal way without the fear of disrupting the GOTO references. ●

# TEXTPRO MACROS continued

## CONCLUSION

These printing tips should make TextPRO more useful to you. If you implement the HELP screens, TextPRO will be more user-friendly, as well. I've enjoyed writing this series of articles about TextPRO for you. Hopefully, this series has shown you that a kinder, gentler TextPRO is out there waiting for you to customise.

*This series of articles originally appeared in the US magazine Current Notes which no longer covers the Atari Classic. Our thanks go Joe Waters who published a fine magazine for many years.* ●

# THE NOSTALGIA column

**by Dean Garraghty**

# WHEN ATARI HAD THEIR OWN MAGAZINE

Now that the 8-bit Atari is in its twilight years there are often few new things of any importance to write about. However, the Atari has been around for some 16 years now, so there are stacks of things from the past that can be looked at. I think it's good to remember the Atari's past. It was full of excitement and certainly left its mark on a lot of people. For the next few issues I will find something from Atari's history and write about it. This issue I'm going to look at Atari UK's Input/Output (I/O) magazine.

***I/O was a magazine*** produced by The Atari Home Computer Club (which was run by Atari UK) in the very early 80's. I have issues 1 to 5, and I believe that was all they actually produced. These were strange magazines in that they were produced by Atari, and therefore were slightly biased!! Almost all their content related to Atari products, which of course were always described in a very positive way!

***Issue 1 (dated Winter 82/83),*** which I believe is quite rare, wasn't a magazine at all, despite it saying "magazine" on it! It was, in fact, a large fold-up card. About a quarter of this issue was taken up by an article on how an Atari 800 was used to create sound effects for the film Tron. This, of course, sang the Atari's praises and made out that the Atari would revolutionize the sound effects industry! I'm not sure that actually happened! The then new release Centipede was reviewed in this issue without a bad thing to say about it! There was a competition to win tickets to see the then brand new film E.T. There was also a brief summary of events at the 5th PCW show, which Atari attended. The rest of the issue was taken over by short type-in graphics listings. Nothing major, but in 1982 you'd have brought your mates round to have a look!

***By issue 2 (Spring 1983)*** I/O had become a proper A4 sized magazine with 24 pages. This issue started out by making some corrections to issue 1. How on Earth can you make mistakes on a 2 page bit of card? Well, Atari did! There was quite a bit of news to report in this issue. Atari sponsored a six-a-side football match in Birmingham. There were some 400s and 800s available for you to have a go on, so it was really just a big Atari advertising event! Atari had done three shows since issue 1, and they took the opportunity to tell you how brilliantly they had done, but would we expect them to say otherwise? Atari had also linked up with a radio station in Bournemouth where people could go down and compete at games like Space Invaders, Asteroids, PacMan, and Missile Command. The 1200XL was also detailed, which turned out to be a waste of time because it was never released! An article headed "Meeting the Press" told of how Atari were trying to get coverage in national papers and magazines by inviting the press to come along and try using an Atari for themselves. Defender, Galaxian, My First Alphabet, and The Home Filing Manager were new products that were previewed. There was an article on some software written for the ATP (Association of Tennis Professionals), which kept track of tennis results and various other things. There was a brief article on APX software, inviting you to write some software of your own.

A very long article headed "Hello Mr. Chip!" was about the Atari in education, which doesn't make sense to me because the Atari was never adopted in the UK as a machine for use in education. The BBC Micro was, of course, chosen. The type-in listings were for Atari's PILOT programming language. There was one BASIC listing for producing that now familiar mode 9 tap! There was a useful article in this issue on how to photograph your graphics. Still useful even today! There was also an appeal for people to send in photographs of their Atari systems, and they did too as I'll mention in my descriptions of the next issues. There was also a nice article on using sound on the Atari, with a few type-in sound effects listings. The last article in issue 2 was a good review of Graham Daubney's visit to the Birmingham User Group (BUG). It was actually very funny, especially his jokes about needing a translator! He also commented: "The town-planners ... have carefully arranged the city so that, no matter where you want to go, you can always see it, but never quite get there". He was talking about Birmingham, and he's spot on! He also commented that at the meeting they appealed for articles for a new magazine they were to produce called PAGE 6. Yes, for those of you who don't know Page 6 started life as BUG's group newsletter.

***Issue 3 (Summer 1983)*** featured Paul Daniels on the cover, with a very badly fitting wig! The main news this issue was Atari's successful time at the Ideal Home Exhibition (of course it was a success, Atari wrote the review!). Apparently famous stars and Royalty visited the stand! Yes, famous people like Modern Romance! Who?? I have no idea either, but they were apparently a famous pop group. Atari also reported that they had given loads of Atari systems to various newspapers, magazines, and TV programmes to give away as prizes. There was a brief article on a Computer Camp Atari had given twenty 800s to. New products being previewed this issue were Caverns of Mars, E.T. Phone Home, Dig Dug, and Paint.

Next up were some photos people had sent in of their systems as requested in the last issue. I can't honestly see the point of printing photos of people's living room tables with a 400 sat on top! One Darren Martin who sent a picture of his system must have been well off. He had an 800, 810, and a printer!! Imagine how much that would have cost in mid-1983! Next came quite a technical article on using the Atari's 256 colours. This included DLIs, VBIs, and string manipulation. Quite heavy subjects. It came with listings in Basic and Machine Code. M/C was not something typically seen in magazines of this period. Most people were scared to death of it, and I suppose many people still are now!

The main article this issue was on Paul Daniel's use of his Atari 800. He apparently went into a computer shop, handed over £1000 and got an Atari 800 with disk drive and tape deck. Not that good a deal! It also mentions that he wants to write an adventure game. Next came an article on Player Missile Graphics. This came with a program listing that had been split line by line to show what each was doing. The next article was about the development of the home computer from the original mainframes of the 40's. This rapidly moved on to become just one big advert for Atari's products! Next came more graphics type-in listings. The last article

showed how Atari got its name, which is now well-known information, but it was still quite interesting.

***Issue 4's (Autumn/Winter 1983)*** editorial column discussed "the new generation" of Atari machines. They were, of course, talking about the XL range. They waffled on about the 1450XLD, which we all know never made it! The main news of this issue was about Atari's Software Development Centre. They were set up to help Atari compete in the UK software market, mainly by assessing user's software contributions, as well as adapting US software for the UK market. This was to include introducing APX software to the UK market. The next article was boldly headed "Atari Unveils the Future". What a statement! This was more on the new XL range, and again went on about the 1450XLD. It also went on about the CP/M module which didn't make it either!

There were a couple of updates to stories from the last issue. The main one was about Atari loaning 20 systems to the Computer Camps. They actually lent 100, and they were proud of it naturally!! There was also an article about Atari's involvement with sport. They claim "following the outstanding success of the Atari Soccer 6....", which is another bold statement! The Atari Challenge, as it was to be called, would allow people to play on Atari computers at various sports centres around the country.

There were some program listings contributed by readers. All the usual early 80's sort of stuff! Next to this were some more photographs of people's systems. Mostly all from the same guy! Next to this was an article on assembly language programming, which is actually quite good. A special "pull out guide" in this issue detailed the new machines and peripherals (1010, 1050, 1025, 1020, 1027, touch tablet, super controller, Trak-Ball). The new software previewed were Juggle's Rainbow, Juggle's House, Mickey in the Great Outdoors, VisiCalc, AtariWriter, Family Finances, TimeWise, Eastern Front (1941), and Donkey Kong. The "coming soon" page listed Pole Position, Pengo, Atari Logo, Donkey Kong Jr., Tennis, 600XL memory module, CP/M module (which never made it), Atari Expansion Box (which never made it), Ms. PacMan, Joust, and a "Stop Press" for the then brand-new The Lone Raider. They wanted £14.99 for this on tape. Just two years later they were giving it away with 800XLs!!

There was an article headed "Tech Specs", which detailed the new arrangements for their helpline number. Yes, it appears Atari did once actually support their own machines! The article went on to talk about the monitor port and what each pin does. It finished by telling you why only Atari datarecorders work, and nobody elses. Next came an article headed "Scrolling Venetian Blinds". This contained details and program listings on how to create the now-boring scrolling colours. After this rather technical article, came "Discovering Atari Basic". This article was more in tune with the period in which it was written, with, for example, what a DATA statement is and does. The APX titles T: and Quarxon were reviewed next. They both were, of course, faultless and excellent!! Next came "Atari's Outer Limits" which was an article on the benefits and pitfalls of video and computer games (yes, we used to call them "video games" back in the old days and not "consoles" as we now have to). Then came an interesting article called "Les Ellingham's PAGE 6". In this Les talks about all the joys of reading Page 6, which was only on issue 4 at the time. Lastly came an article about MACE (Manchester Atari Computer Enthusiasts). They claimed they would create a magazine better than I/O (which wouldn't be too difficult!), and PAGE 6!! Oh dear, I don't think that happened, or we'd be here waiting for issue 80 of MACE Magazine to turn up!!!

***Issue 5 (Spring 1984)*** was, I think, the last issue. This issue kicked off by challenging somebody to write a cricket game for Atari. A £1000 prize was on offer. Peanuts compared to what Atari would have made out of it, but back in those days nobody knew any better. The main news this issue was that Paul Daniels had finished his adventure game, and it was on sale in two parts for £20 a part! Ouch!! The other news was that Jeremy Beadle (who was at the time famous for "Game for a Laugh") had been given a 600XL. He apparently had 5000-odd books he need to cross-reference. Yes, they gave him a 600XL for that! I wouldn't like to attempt that on a PC! It's amazing how many stars Atari tried to get on their side. It was the same in the States, with Alan Alda appearing in their adverts. Also being reported was the recent British Golf Classic which Atari had sponsored. Atari had recently run a Player of the Year competition, with 80,000 entries. Following their donation of machines to the Computer Camps, Atari then donated some to the Holiday Inns to be used for "computer weekends for families". Atari had recently exhibited at the Great Home Entertainment Spectacular and the PCW show. They were giving touch tablet and light pen demos, as well as running "Atari Theatre" sessions to present computers to the masses.

Next came a collection of reader's programs. Nothing special, just the usual type of stuff for this period of time. Then came the second part of the Assembly Language column. New software being reviewed this issue were Pole Position, Ms. PacMan, Joust, The Lone Raider, Jungle Hunt, Donkey Kong Jr., Robotron 2084, Pengo, and the Atari Game Kit. There were two longer reviews of The Home Filing Manager and Dig Dug by two people from Silica Shop, so at least these reviews were not so biased! Next came a sort-of interview with Justin Whittaker who was 17 at the time, and who had just written The Lone Raider for Atari. It apparently took 5 months to write. The "Tech Specs" column talked about repairs, protecting your programs, and loading machine code programs.

The longest article this issue was by Jack Schofield, who at the time was editor of Practical Computing, and who is now the editor of the Computer Guardian. The article headed "Practical Peripherals" was a review of the touch tablet, Trak-Ball, and the 1020 plotter. And it really was a review, because he didn't really like the Trak-Ball, and he didn't mind saying so! He seemed to like the touch tablet very much indeed! The next article was about mixing old and new peripherals. This still went on about the CP/M module and the Expansion Box, which didn't actually appear. It amused me that Atari blamed third party software companies for not following their guidelines which made so many of their programs incompatible on the new XL range!

Next came a "Profile" of a guy who had used his 400 to generate graphics for a TV commercial he was working on for Sony. A small "Factsfile" column described the differences between using a Composite Video monitor and a TV RF cable. Lastly came an interview with the guy who ran SMAC (South Middlesex Atari Club). Yes, I've never heard of it either! They apparently produced a newsletter called SMACLET, and they planned to build a robot to be controlled by their Atari!

As far as I know, issue 5 was the last issue of I/O magazine produced. They were all very much biased towards Atari, but then the magazine was published by Atari so that explains it! However, these mags cost 95p each, so you effectively had to pay for Atari to blast adverts at you!

I spent a great day going through these issues, and kept thinking "I know what happens in the future!!", and "I wonder where all these people are now". It would be interesting to find out. I really did get nostalgic while reading these mags, more so by the photographs of the people they interviewed. Did we really go around dressed like that!? •

# DUEL

***Joel Goodwin presents a two-player game using the Motivation routine from the last issue***

Welcome to Duel, an addictive arcade game for two players. It is written in BASIC with machine code thrown in for good measure. It also makes use of Motivation, my player-missile graphics driver published in the last issue.

## THE DUEL

Centuries have come and gone in the Kingdom of Knurl. Technology has brought with it new wonders and new hazards. People have gone from living in huts to living in space stations orbiting the planets in the local star system. But ... one thing has always remained constant in the Kingdom - the Duel. It has always brought in the crowds, becoming more and more popular with each generation. And now it is televised for all in the Kingdom to see.

Originally in the Duel, two warriors would fight each other, with only one of them wielding a sword, the other being unarmed. After a certain period of time had elapsed, the Duelmaster would knock his staff on the ground and the Switch would occur - the fighting momentarily stops as the sword is given to unarmed warrior. The battle continues with Switching occurring at regular intervals until one of combatants falls.

Of course in modern Knurl, no-one gets killed any more, and it's all done with state-of-the-art technology rather than swords. The duellists now fight with spacecraft; a shield is exchanged between the two craft and the shield-bearer must try to ram the other duellist before the shield is lost at the next Switch. There's all sorts of complex teleportation devices at work to make sure neither duellist is killed in the Duel, but it is still the most popular sport in the kingdom. Are you ready for the challenge?

## PLAYING THE GAME

There are variations on the main theme, but essentially the game is as follows. Both players have control of a ship which is displayed on the screen. The left joystick controls the duellist who starts on the left (normally coloured green) and the right joystick controls the duellist starting on the right (normally coloured purple).

One of them will have the shield. This duellist will be coloured bright white. The shield-bearer must try to collide with his opponent before the Switch occurs - i.e. when he loses the shield. The time to the next Switch is indicated by the bar at the top of the screen.

That is the game. But as I said there are variations on the main theme.

## OPTIONS

On the title screen, you will see a list of game characteristics which you change by pressing SELECT and OPTION. Here I explain what each option means.

**ARENA:** This is the scenery you play against. "Empty" means exactly that. "Kill" means there are red crosses dotted about which can kill a duellist instantly *INCLUDING THE SHIELD BEARER.* "Fog" means that a white fog is present in the middle of the screen which duellists can hide behind; note that the fog merely obscures and does not protect a duellist from attack. "Mixed" means there is both fog and red stars on the screen. "Kill +" means there are a lot of red crosses on the screen. "Fog +" produces a fog which dominates most of the screen.

**BOUNDARY:** "None" means that duellists can fly off the side of the screen to re-appear on the opposite side. "Rubber" means that there are now rubber walls which duellists will bounce off. "Solid" is again more walls, but duellists do not bounce off them. Finally "Killer" means that the walls will now kill any duellist that comes into contact with them; in this instance they are coloured red.

**SPEED:** This is the speed at which the game plays.

**SWITCHING:** This is how frequent Switching occurs. "Slow" means the period between each Switch is long. "Fast" means Switching is unusually rapid and makes for an interesting game. Note the Switching speed is independent of the game speed.

**GOAL:** To win a Duel, the opponent must score a certain number of points. Scores are shown at the top left and right of the screen (corresponding to the left and right joysticks). The duellist scores a point each time the duellist's opponent is destroyed. The duellist must attain a number of points equal to the Goal to win; however, the duellist must have at least *TWO MORE POINTS THAN THE OPPONENT* as well. If one duellist reaches the Goal but has not got two more points than the other duellist, then the scoring will turn into an "advantage" system like in tennis. In this case, the scores are blank unless one duellist has got a point ahead of the other; the duellist's score will then read "AD" and this duellist must score another point to win. For example, consider a goal of 10. If both scores are 9 and the second duellist scores a point, then instead of the scores reading 9 and 10, the only score displayed will be "AD" for the second duellist.

## LAST REQUESTS

It is possible for both duellists to be destroyed at the same time (e.g. both on a killer wall). In this case neither duellist will score a point.

Duel is a lot of fun for two players and with all the variations possible it should keep you interested for quite some time.

### THE LISTING

**The listing for DUEL is too long to include in the magazine and is therefore on this issue's disk as a ready to run program. It is also available on request as a TYPO coded printed listing for you to type in.**

# DISK DIRECTORY MOVER

***John Foskett answers a How Do They Do That? with a great Turbo BASIC utility to move the directory of a disk ... and more!***

After you have completed your latest game or utility, a masterpiece of programming, it would be nice to add the professional touch before releasing it into the public domain. Many disk based programs show an information header when examined by DOS whilst the actual program itself is hidden away in a repositioned directory.

Moving the directory of a disk to a new location is really a simple matter, but it can prove confusing and very error prone. It is quite easy to load a BASIC program, do the necessary POKEs and save it onto a disk with a repositioned directory, but the trouble comes when trying to transfer a non-BASIC program or file. In other words if BASIC is not present then the necessary POKEs cannot be done.

The program presented here allows the position of the disk's directory to be moved to a new location and amends the disk's VTOC table to protect it. The program also provides a means of copying files from normal unmodified disk's into the repositioned directory of the modified disk. All but the first two sectors (sectors 361 and 362) of the original directory are released in the VTOC table for data storage. The program allows an information header to be created consisting of up to 8 lines (or file name positions) and writes it into the first sector of the original directory (sector 361) which will be displayed should the disk be examined using a conventional DOS. Since two of the original directory sectors remain protected within the disk's VTOC table along with the repositioned directory, it in effect creates a dual directory disk which has one small directory available to a user of your program and the main directory hidden. You may wish to make document files available to a user of your program whilst the program itself remains protected and hidden.

Note that at least ONE file name position in the original directory must remain unused to prevent DOS from running into possible data and spoiling the display of the information header and available files. The two sectors allow a maximum of 16 files to be stored, but the need to leave at least one entry unused, reduces the maximum to 15. If an information header consisting of the maximum 8 lines is used, then the maximum number of files the disk can store in this directory becomes 7. The important point to note is that DOS attempts to find an 8 sector directory, listing the file names until an unused entry is found. Using only 2 sectors for a directory means that DOS will overrun unless it is restricted by an unused entry.

Using such a dual directory disk means that it is possible to store more than the stipulated 64 files on the disk!

## HOW THE PROGRAM WORKS

The position of a disk's directory is determined by a vector stored within the disk's boot sectors. The vector of a normal format disk has a hi-byte value of 1 and a lo-byte value of 105 which calculates using the normal lo/hi two byte method as follows ....

LO+256*HI: 105+256*1 (or 105+256) =361

Hence the directory of a normal format disk can be found beginning with sector 361.

This shows that all that is necessary to move a disk's directory is to change the directory vector and then to format the disk afterwards. The new vector value will then be written into the boot sectors and the directory will be moved into the new selected position. That is exactly how the program presented here works!

## GRAPHIC SELECTION

To keep the calculations relatively simple, only the lo-byte of the directory vector is altered, the hi-byte remaining unchanged. Although only altering the lo-byte keeps the calculations simple, it does have the obvious disadvantage of restricting the range to where the directory can be moved. But the restricted range does allow a graphic method of selecting the new directory position to be used giving a visual indication rather than by blindly entering figures from the keyboard.

## THE INITIAL SCREEN

When the program is run, the initial screen is presented from where the new directory position is selected by pressing the left/right arrow keys to move a pointer along a graphic scale (see technical details). The vector lo-byte value and the eight directory sectors associated with the current pointer position are shown on screen for reference and are updated each time the pointer is moved. The vector lo-byte (location 4171) shows the value to POKE into the location in order to access the repositioned directory from BASIC.

Once the new directory position has been selected, RETURN is pressed to enter it after which the format density for the disk is prompted for by either pressing 'S' for single density or 'E' for enhanced density. After selecting the format density, 'Y' is pressed to

continue or any other key to exit and upon pressing 'Y' the disk currently in drive 1 will be formatted. When the disk has been formatted, the DOS.SYS file is written into the repositioned directory after which the disk's VTOC table is amended to protect the repositioned directory. When completed, START is pressed to continue.

# THE MENU

Upon pressing START, the following menu is displayed ....

**1. COPY TURBO BASIC AS AUTORUN.SYS**
**2. COPY RUNTIME.COM AS AUTORUN.SYS**
**3. COPY COMPILED PROGRAM AS AUTORUN.CTB**
**4. COPY DUP.SYS**
**5. COPY MISCELLANEOUS FILES**
**6. CREATE INFORMATION HEADER**
**7. ALL FILES (UN)LOCKED**
**8. WRITE WITH(OUT) VERIFY**

**PLEASE SELECT OPTION 1 TO 8**
**OR PRESS <OPTION/ESCAPE> TO EXIT**

The options on the menu are described as follows ....

1. Copies the Turbo BASIC language from a normal disk using the file name "BASIC-.TUR" into the repositioned directory of a modified disk as an "AUTORUN.SYS" file.
2. Copies the "RUNTIME.COM" file from a normal disk into the repositioned directory of a modified disk as an "AUTORUN.SYS" file.
3. Copies a compiled BASIC (or Turbo BASIC) program using the file name "AUTO-RUN.CTB" into the repositioned directory of a modified disk using the same file name.
4. Copies the "DUP.SYS" file from a normal disk into the repositioned directory of a modified disk using the same file name.
5. Copies a file or program from a normal disk using any file name into the repositioned directory of a modified disk again using any file name or the same file name. Note that this option could be used instead of options 1 to 4.
6. Enables an information header to be created using any of the available characters and a maximum of eight lines (or file name positions). Once written to disk, the header is re-read from the disk and displayed on the screen.
7. Toggles locking and unlocking of all files in the repositioned directory.
8. Toggles the write function with or without verify.

Note that ESCAPE may be pressed with OPTION to exit from the menu back to the initial screen. After selecting, 'Y' must be pressed to exit or any other key to return to the menu.

# MASTER UTILITY DISK

It was found convenient to produce a master utility disk for use when moving a disk's directory which contains the program as an AUTORUN.BAS file and the main relevant files for copying. If required the program may be compiled and included on the disk as an AUTORUN.CTB file in the normal way. The only point to note is that Turbo BASIC must be included on the master disk using the file name "BASIC.TUR", if another file name is to be used then the corresponding file name in the listing should be changed accordingly.



# TECHNICAL DETAILS

## POSITIONING THE DIRECTORY

A graphic scale (a combe) is used to provide an easy method of selecting the position to where the disk's directory is to be moved. The available range is divided into 32 groups of 8 sectors, any group of which can be selected by moving a pointer along the scale. Using fixed groups of sectors selected via a graphic scale was chosen because of the way in which the disk's VTOC table works. The standard directory position on the scale has been disabled since there would be no point in using it! Also it would overwrite the disk's VTOC table (sector 360). The position on the scale following the standard directory position has also been disabled because the standard directory begins with sector 361 which would overlap the following group by one sector. This is because the standard directory does not fall into a group of sectors beginning with a multiple of eight. The position on the scale immediately before the standard directory position has also been disabled simply to balance the appearance of the display.

## THE DISPLAY LIST

The program uses a mixed mode display list providing 1 line of mode 2 and 5 lines of mode 1 for the programs title and heading followed by 18 lines of mode 0. The display list is initially defined as A$ and MOVEd into page 6 prior to A$ being loaded with zeroes for its other uses.

## PMGs

The program uses 2 players, player 0 defined as the cursor used for keyboard entry and player 1 defined as the arrow pointer for selecting the directory position. The two player stripes are initially cleared by MOVEing a length of A$ (loaded with zeroes) into them after which they are defined again using MOVE. CR$ contains the data for defining the cursor and AR$ contains the data for defining the arrow pointer.

## TEXT ERASING

When loaded with zeroes, A$ is used for erasing text from the screen which is achieved by MOVEing a length of A$ into specific areas of the screen RAM.

## COPYING FILES

The main use of A$ and the reason for its extreme length is to copy files for menu options 1 to 5. The file is first read into A$ from disk via the use of a FOR-NEXT loop using GET to read the file one byte at a time. The loop is used as if it were an infinite loop using the error trap routine to detect the end of file (EOF) error 136. Since the file is read via a FOR-NEXT loop, at the time of EOF exit via the error trap routine, the length of the file is recorded using the loop's variable which is then used in the write process. When ready to write the file to the modified disk, a second FOR-NEXT loop is used to PUT the contents of A$ (the stored file) one byte at a time to the disk. Although copying a file using GET and PUT is slow, it does have the advantage that it can copy ANY file whether it be a BASIC program, a machine code program, a WP document file or even a data file such as a hi-score table. To speed up the process, the actual read/write loops are placed at the top of the listing, but the process can be further speeded up by compiling the program.

*continued* ☛

## TRAPPING ERRORS

An error trap routine has been included to detect all disk errors which may occur as well as for detecting the EOF error used when copying files as described above. Because disk errors could occur in several different places within the listing at different levels (that is loops within procedures, etc.) some means of preventing stack errors had to be accommodated. Variable "PP" (which represents POP) is used for this purpose to preset the required number of POPs necessary from the various points within the listing where disk errors could occur.

# THE VARIABLES

A good way of understanding how a program works is to examine its variables ....

## THE PROCEDURES

**CLEAR** Erases the bottom 2 lines of the screen

**CLICK** The key click

**COPY** Reads files from a standard disk and writes them into the repositioned directory of the modified disk

**ENTER** Gets entries from the keyboard for file names and for the information header

**EXIT** Allows exit from the menu back to the initial screen to select a new directory position

**FILES** Gets file names for menu option 5 to copy miscellaneous files

**HEADER** Constructs the information header, writes it to the disk and then immediately reads it from disk and displays it on screen

**INIT** Initialising routine

**LOCATION** Gets the new position for the directory, formats the disk, writes DOS-SYS, amends the VTOC sector(s) to protect the repositioned directory and frees all but the first two of the original directory sectors for data

**LOCK** Lock and unlock toggle for all files in the repositioned directory

**RESET** Resets parameters for exiting the ENTRY procedure

**SECTOR** Accesses disk sectors for read and write for amending the VTOC sector(s) and when constructing the information header

**VERIFY** Toggles write with and without verify

**WRITE** Loop for writing files into the repositioned directory

## THE ONE LINE LABEL

**MENU** Marks the start of the menu

## THE STRINGS

**A$** For storing a file prior to writing it to disk (via menu options 1 to 5). Also used for loading the display list into page 6 and for erasing screen text

**AR$** Data for the arrow for selecting the directory position

**CR$** Data for the cursor for keyboard entry

**DD$** Defined

**DEN$** Stores either SINGLE or ENHANCED, the format density of the disk selected from the initial screen

**DS$** Defined

**DV$** Defined

**F$** For reading the information header after its been written to the disk

**FI$** Stores the input file name, the file to be read

**FO$** Stores the output file name, the file to be written

**I$** Used in the ENTRY procedure for storing the keyboard entries

**IN$** Defined

**O$** Defined

**OUT$** Defined

**PW$** Defined

**SEC$** Buffer for storing the data when a sector is read from disk and when writing a sector to disk

**U$** For loading keyboard entries into the buffer (SEC$) when constructing the information header

**V$** Stores the amended VTOC data

**VBI$** The VBI routine

**Z$** Machine code routine for accessing the internal disk access routines

## THE MAJOR VARIABLES

**ADDR** Address of A$ used when erasing text from the screen

**ALEN** Length of A$ (20000 bytes) used when loading A$ with zeroes

**DEN** Indicates the format density of the disk, either 0 for single density or 1 for enhanced density

**DSEC** First sector of the repositioned directory

**FILE** Allows exit from the error trap routine back to the menu if the menu has already been entered otherwise exit is back to the initial screen

**FIRST** Lo-byte of the directory vector

**IO** Direction of data transfer, read from or write to disk

**LCK** Toggles the locking and unlocking of all files in the repositioned directory

**LCKERR** For correcting the lock/unlock function should a disk error occur

**LOC** For selecting the position of the directory, incremented or decremented by 1 each time an arrow key is pressed

**LINE** Count the number of lines when constructing the information header

**MAX** Sets the maximum number of characters which can be entered from the keyboard

**PP** Number of POPs required in the error trap routine to prevent stack errors should an error occur when reading from or writing to a disk

**SCRN** The screen RAM address used when erasing text from the screen

**SEC** The sector for accessing

**VERIFY** Toggles the write function with or without verify

Many of the programs constants are replaced with variables to preserve memory, they are preceded with the letter "N" and their values do not vary. These variable constants are easily recognisable in the listing because they comprise of the value they represent preceded by the letter "N", thus N4=4, N5=5, N6=6, etc.

```
; DISK DIRECTORY
MOVER
; Deferred VBI Routine
; Written by
; John Foskett
; october 1996
;
 PHA
 LDA #0
 STA 77
 STA 767
 LDA 203
 BNE EXIT
 STA 694
 LDA #64
 STA 702
EXIT
 PLA
 JMP 49802

; DISK ACCESS
; SUBROUTINE
;
 PLA
 JSR 58451
 RTS
```

## THE LISTING

*The program listing is too long to include in the magazine and is therefore on this issue's disk as a ready to run program. It is also available on request as a TYPO coded type-in listing complete with separate utility to type in the complicated machine code strings*

HEY! HEY!

it's

# The TIPSTER

*The column this time is comprised of tips from two of our regular contributors, without whom the Tipster would have faded away. Many thanks to James Mathrick and Joel Goodwin for realising that the Tipster needs constant nourishment. As for the rest of you, take pity on a poor creature whose only purpose in life is to bring gaming joy to Atari users around the world and start feeding him a few hints or tips of your own.*

*Let's start with the James Mathrick section! Although James is giving many hints, he also asks for help at various points in some of these games, so read through carefully to see if you can provide some answers for the next column.*

## ALTERNATE REALITY - THE DUNGEON

If you encounter (or call) and hail a healer, he will offer his healing services in exchange for a 'transfer of funds'. However, if you have little or no money, he will take pity on you, and restore a set number of hit points in exchange for what money you have (which can be nothing at all).

When starting out in the Dungeon, always use a lit torch as a primary weapon - it makes an excellent club!

## HARDBALL

Is it just me or is the computer very biased in one player mode? When I throw a ball against its players it hangs in the air while the computer's players run around the bases and score more points. Yet when it throws a ball against my runners, it passes instantaneously between bases. Never mind. Any help on this game? Particularly with the stats given with the pitchers/batters - one for baseball fans here! The stat titles are AB, HR, RBI and SB. Avg. I assume stands for average - but average for what?

## RAMPAGE

The controls for this game are not very easy to handle, and in order to punch/eat something it is advisable to push the joystick in the required direction before pressing the fire button, otherwise you will end up jumping off the side of the building. Incidentally, jumping from the top of a building or from the side of a crumbling building is better than falling from them - you will not lose body points that way.

If it appears that you have caused maximum damage to a building, and it is still standing, then it is likely that you have not punched the sides of the building. In order to do this, you must press fire whilst climbing up/down a building.

It is possible to attack your opponent, causing him/her damage and giving you points. However, it is not advisable to do this, as your opponent helps you to clear levels and draws fire from choppers, tanks and snipers.

Should your opponent revert to their (naked) human form, then you can eat them (pull down and press fire) to boost your energy stats.

## THE LIVING DAYLIGHTS

Another game with tricky controls, but if you jam the joystick in the up/left position, 007 can make his way (jumping forward) through many levels with minimal damage. Be aware, however, that some levels require you to kill a big baddie before proceeding to the next level, and so you may not be able to 'hop through' the whole level.

Ideal special equipment from Q's workshop:

**LEVEL 2** - Night vision glasses (allow you to see the holes which can trip you up)

**LEVEL 3** - Hard hat (reduces the damage from falling pipes to 3 body points)

**LEVEL 4** - Bazookas/Mortars (to stop the choppers)

**LEVEL 5** - Crossbow? (to burst the balloons?)

The items for levels 4/5 may not be exact as the selection process in Q's workshop is slightly, but frustratingly, bugged (i.e. what you select may not be what you get!). Overall I found this game frustrating and boring. Any comments or other tips?



# LANCELOT

Do not sleep at Mews as you will get covered in birds' droppings, and for a short time afterwards be dubbed 'Lancelot the Smelly' - instead crash down at Merlin's house. From West Way to Merlin's is N, N, W, W, W, IN. While you are there, read the books in his library (to the East of the study) for hints and points.

Remember to always pray at a place of worship and always accept the surrender of another knight, as any good knight should do.

I cannot get into Meliagaunt - although I can get a ride there by a carter - is this the solution?

In the Quest for the Grail, do not worry about the damsel problem - if you do not eat all of her cakes you will be Lancelot the Uncharitable, and if you do eat them all you will be Lancelot the Glutton. On a philosophical note, it shows a knight's goal can never be attained, but on a more mundane level, Lancelot needs some sin placed on him so his son can be the best knight in the world and so receive the Grail. Do not steal the crown for the preacher, or kill another knight. Push on upwards on the mountain, despite the disciples' warnings - they are demons in disguise. Do not take the sword or the shield, open the tomb, or try to sail the boat as only the best knight in the world, Galahad, can do these actions. I have not yet managed to persuade him to do them - this is where I need help. On a final note, use the cup you receive to give to the pilgrim by the well, so that he can drink.

I have not got far in the second part, in Logris, apart from defeating the odd knight or two. I have rescued the lady's hawk by removing my armour to climb the tree, but when I climb back down, a knight challenges me to a duel, which I lose due to the lack of weapons and armour as I cannot get them after climbing down again. I cannot convince the red knight to fight for me, or collect the hawk either.

At the siege, blow the horn to get into the castle. The lost Knights can be found under a castle (Turquin's manor, I think), but as to how to get out, or past the arrow trap safely, I don't know - I think it involves the red knight somehow.

I gave up mapping the forest due to sheer tedium setting in - can anyone supply maps of these areas?

Like Silicon Dreams (another Level 9 offering) I found this game slightly impersonal and illogical, but any help on this game would be gratefully received.-

* * * * * * * *

*Lets' finish off by passing over to Joel Goodwin for our final couple of tips this issue.*

## MERCENARY

**There is actually a *third* way to escape Targ. The Palyars ask you, in the Briefing Room, to destroy all of the Mechanoids' sites; similarly, the Mechanoids ask you to destroy all of the Palyars sites. The problem is distinguishing between these sites.**

*continued* ☛

# MERCENARY

**The solution is in the form of the Metal Detector object. When carrying it, the message bar will turn to a colour appropriate to the forces occupying the site you are near. I don't recall the colour coding off hand, but note that some sites are neutral. If you've destroyed, by mistake, any sites of the side you're hoping to impress, then if you fire at the ruins while carrying the Anti-Time Bomb, they will reconstruct before your eyes.**



# ALTERNATE REALITY (AGAIN!)

For all those Atari users who have access to the Web, there is a great web page for AR enthusiasts run by Robert Hagenström. It's address is:

**http://www.ksk.sala.se/~sp93rob/dungeon/**

The page has been up since January 1996 and is crammed full of information. Maps, song lyrics, hidden features and words from the creators of AR themselves can be found on this web page. Just a taster - it reveals the name of the Dungeon Gargoyle to be ... SHINGOR (a crude anagram of the surname of the actor who played the Riddler in the Batman series, Frank Gorshin). You were supposed to learn his name in a later instalment in the AR series. I'll let everyone find out for themselves what happens if they tell the Gargoyle what his name is.

* * * * * * * *

# HELP!!

James Mathrick can't seem to get the tip for **DRACONUS** in Issue 69 to work. Can anyone verify whether it does, or doesn't, work?

No response to the request last issue for help on **MIDNIGHT**, **HAWKQUEST**, **DRUID** and **ZYBEX**. Someone must have played these games, so how about writing down your findings?

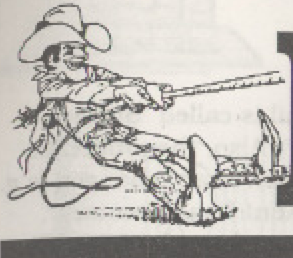
Come on, guys and gals!

*Okay that's all for this issue. This Web thing sounds quite good doesn't it? The only web the Tipster is able to find in his den is a nasty looking thing which covers most of the ceiling. I wonder if I learn the magic words whether it will hold the answers to the secrets of the Atari gaming universe? I reach out and utter the the secret code (no I can't tell you what it is otherwise it wouldn't be secret) ... and ... yuck, that's disgusting, there's all dead flies and wasps in it! Guess that's not the right web after all.*

**As usual all the fodder for the Tipster goes to:**

**THE TIPSTER**
**NEW ATARI USER**
**P.O. BOX 54, STAFFORD**
**ST16 1TB**

# ST PUBLIC DOMAIN ROUNDUP



*Hello there! Yes, it looks as if this column is going to be done by me again for this issue. This time I'm going to take a look at two more ST PD disks - SAFE AS HOUSES (ST274) and BATMAN (ST648). So, without further ado... Ladies and Gentlemen, Boys and Girls, it gives me great pleasure to introduce .... this issue's reviews!*

## NANANANANANA-NANA... BATMAN!

**ST648** contains three demos - The Bat Demo, The Fujibonk Demo and Robomix Demo.

First on the menu is the Robomix Demo. Upon loading, some (digitised sounding) music starts to play whilst only a black screen appears. A few seconds later and a border (with the famous image of Robocop leaning over his car door on both sides of it) appears. In the middle of the screen, a digitised still from the Robocop movie appears whilst the music continues to play. The demo is then made up of different scenes from the movie being displayed, whilst sampled clips from the film are regularly played over the music. The stills are all fairly clear although only in black and white. The music is very good throughout and the samples are quite good, although occasionally a little muffled.

Next up is the Bat Demo by the ST Squad. This is a one-screen demo, obviously made after the first Batman Movie. Very little can be said about this demo. At the bottom of the screen, a plain vertical scroller tells you about the demo whilst above, a Batman symbol bounces up and down. What is intended to be the main feature of the demo, I feel, is the sampled rendition of the Batman song that Prince (or should that be Squiggle?!) wrote for the movie. However, this is not of a particularly high sample quality and is made up of bits of the song being put into a loop, thus it tends to get a little repetitive. This is only the half-meg version of the demo but, even considering the constraints, it's not particularly impressive - I've seen far better demos on the Atari 8-bit, for example. Overall, this one is OK but nothing particularly special.

Finally on the disk is the Fujibonk Demo. If my history lessons serve me well, I seem to recall that this was one of the demos that Atari had on show when the ST's were originally released. "So it can't be any good now!", I hear you thinking! Well, actually, you'd be surprised. To sell the machine, Atari had to have something fairly impressive on show and this one certainly did the trick.

All this demo consists of is the Atari Fuji logo bouncing around the screen with a "Power without the Price" slogan at the bottom. However, the fuji logo spins on a horizontal axis whilst it bounces around in front of the checkered background. One side of the fuji logo, being plain in colour, changes shade depending how much light would be shining on it. The other side has the full ST colour cycle running vertically down it.

Overall, although the Fu-

by **Kevin Cooke**

jibonk demo has no spectacular music, it's still very good. The animation is very smooth and the effect is as impressive nowadays as it ever was.

### *GO DIRECTLY TO JAIL...*

Monopoly... that lovely game where you can send one friend bankrupt before dinner, only to be bankrupted by another "friend" after tea! That game which, without fail, comes out every Christmas and bank holiday, only to be forgotten about for the rest of the year!

Well, if you're one of those people who, like me, has difficulty getting anyone else to play it with you, or who can't get enough of it but can't be bothered to keep setting the board up, help is at hand.

Safe As Houses is a fairly faithful conversion of the game. When the disk is first loaded, the very colourful board appears on screen with the title of the game in the middle. Alongside this, a piece of music which seems to be nice for the first two seconds and goes rapidly downhill from there, plays in the background. Pressing any key starts the main game loading.

The first thing that is nice about Safe as Houses is that, like Monopoly, it allows you to choose your playing piece. However, in Safe As Houses, up to eight people can play, choosing to be either the traditional items, or a cat, dog, mouse (the computer variety) or joystick!

Next up, you get an option screen in which you can manipulate the rules of the game ever so slightly. For example, you can choose to place fines randomly on the "No parking" space, choose whether or not you can collect rent when in jail, choose whether you can buy properties on your first trip around the board, choose whether landing on another player should send them back to go, and choose whether landing on the GO square should give you 400 pounds instead of the normal 200. All of these options just show what thought the authors put into the game - after all, everyone has their own variation on the rules!

You also have the option, before starting, to choose a different type of game - either Atlantic, Dublin, London, England or Sheffield. For example, if you choose the England game, the Free Parking square is renamed "The M25", the tax square is renamed "Your Phonebill" and the jail is called "Strangeways". Also, the properties themselves are changed (e.g. Old Kent Road becomes "Newcastle under Lyme"!!!

Safe As Houses is an EXCELLENT clone of Monopoly - the graphics are colourful and very clear throughout. You can also get information on any property (e.g. owner, price, rent, etc.) just by choosing the appropriate option from the menu, and you even get to choose when the automatically rolling dice are stopped. A feature even exists to see who owns what, and what properties are unsold - just press the F1-F10 keys. As if that wasn't enough, you can also save your game (by pressing the "S" key) - no more having the board knocked over when your children get up in the morning!

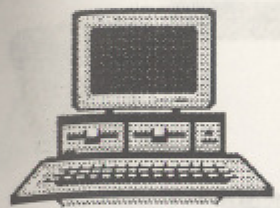
I can't really praise this game any more than to say that it could have been a full-price release and nobody would have minded. Some more tuneful music on the title screen would have improved it but, thankfully, the music that does play there stops during the game. This has to go straight to the top, of the Christmas shopping list! ●

### *GIMME' THOSE RATINGS!!!*

**SAFE AS HOUSES (ST274)** **97%**
*(could have been 98% or 99% is it wasn't for that music!)*

**BATMAN (ST648)** **69%**
*(maybe higher if you're a fan of Batman or Robocop!)*

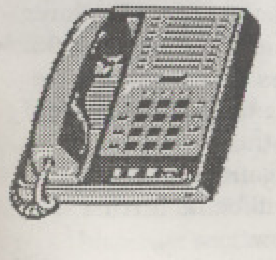




# JOURNEY INTO CYBERSPACE

# IN SEARCH OF ATARI

***John S Davison explores the Internet and discovers all the wonders of a brave new electronic world***

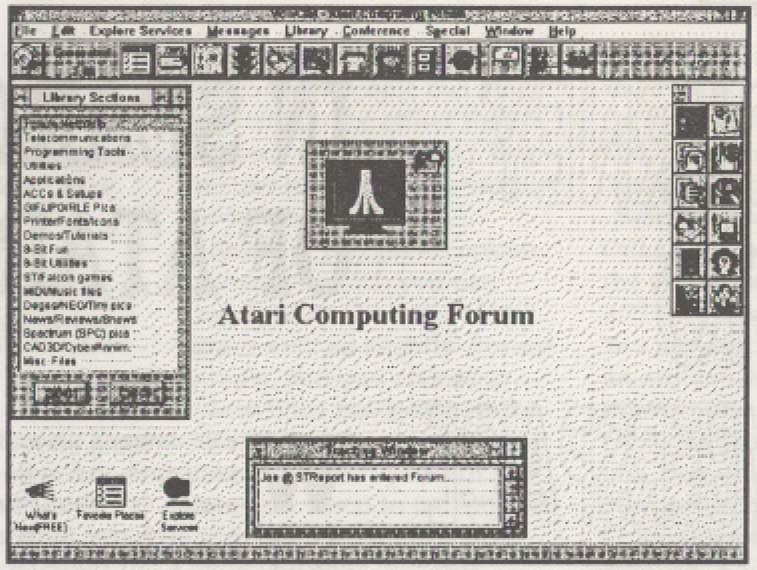


We've covered an awful lot of Internet concepts and tools so far in this series. It's about time we used some of them to search out Atari related areas to see just what's out there for the Atari enthusiast. We'll make it as easy as possible to start with. CompuServe provide my Internet connection, so let's find out what's available within the CompuServe service before venturing outside into the wider world of the Internet.

Finding things within CompuServe is easy, as there's a directory in which you can look up the topics you're interested in. A quick check using "Atari" as the keyword established that there were just three areas of interest, listed as the Atari Gaming Forum, the Atari ST Prod Forum (sic), and the Atari Users Network. So, I fired up WinCIM (the CompuServe access software) on my PC and went to each area in turn to check them out.

## ATARI GAMING FORUM

This forum, which also carries the "Jagwire" logo, is dedicated to gaming on the Jaguar, Lynx, 2600, 5200, 7800, and even the PC - but strangely there's nothing for the ST or 8-bit systems. Atari themselves used to participate regularly here, but their forum representative recently left to join Sony. I guess we'll hear no more from them, given that Atari no longer exists as a company and there are




*Users view of the Atari Computing Forum, with the Library window open showing sections available.*

virtually no people left in the Atari division of the company who took them over.

CompuServe forums are divided into two major areas, these being the Message area where you can leave messages and receive replies, and the Library area from which you can download (and contribute) files. These are then further subdivided into smaller sections, each of which covers a given topic. The Message area for this forum has fourteen sections, between them covering the Jaguar (four sections for this); Lynx; 2600/5200/7800; Atari PC Gaming; plus more general sections for Forum Business; "Rants and Raves"; News/Reviews/Shows; a "Trading Post" where you can buy and sell Atari related items; and an "Open Forum" area for general discussion. A quick dip into some of them indicated there's still some activity here. For instance, the Jaguar General section had 45 separate discussion topics (known as "threads") containing a total of around 500 messages, with some lively discussions going on.

The Library area is subdivided similarly, but each section contains files for downloading. There's a general help and information section which contains such things as instructions on how to download files and various utility programs you might need for decompressing or viewing files. Some of the sections had very little in them, for instance the Atari PC Gaming section contained just one file - a demo of Tempest 2000. Others contained hundreds of files, for instance the Jaguar News/Reviews/Shows section. This was crammed with on-line magazines, FAQ files (Frequently Asked Questions) about Jaguar and Lynx, games tips, cheats, and lots of other stuff. I downloaded a few examples to find out what they were like.

The first item was the Spring 96 issue of Jaguar Gaming Journal. This turned out to be 21 A4 pages of detailed news, reviews, and tips on playing Jaguar games. Great stuff if you're into the Jaguar. Next was CATnips, produced by Don Thomas, the recently departed Atari representative. It's basically a Jaguar newsletter incorporating a selection of items collected from various sources on the Internet. Next was an issue of Atari Explorer Online magazine, this one dated October 95. It ran to over 50 A4 pages and seemed to be focused on the Jaguar again, although there was a small section on other Atari machines. A lot to read here, and again great for Jaguar fanatics. I guess there will be no further issues of any of these now.

The final item was a fairly hefty download of over 1MB. It was one example from dozens of similarly named files - all the filenames began with STR, so I thought they might have something to do with the ST machines. The file was in Adobe Acrobat format, a portable file format now used widely in the PC and Mac worlds for distributing and viewing electronically published material. It allows you to navigate around, view, and print the material even if you don't have the original software on which the material was produced. Adobe provide a free Acrobat reader utility, so my next job was to download a copy of this from CompuServe - another 1.5MB!

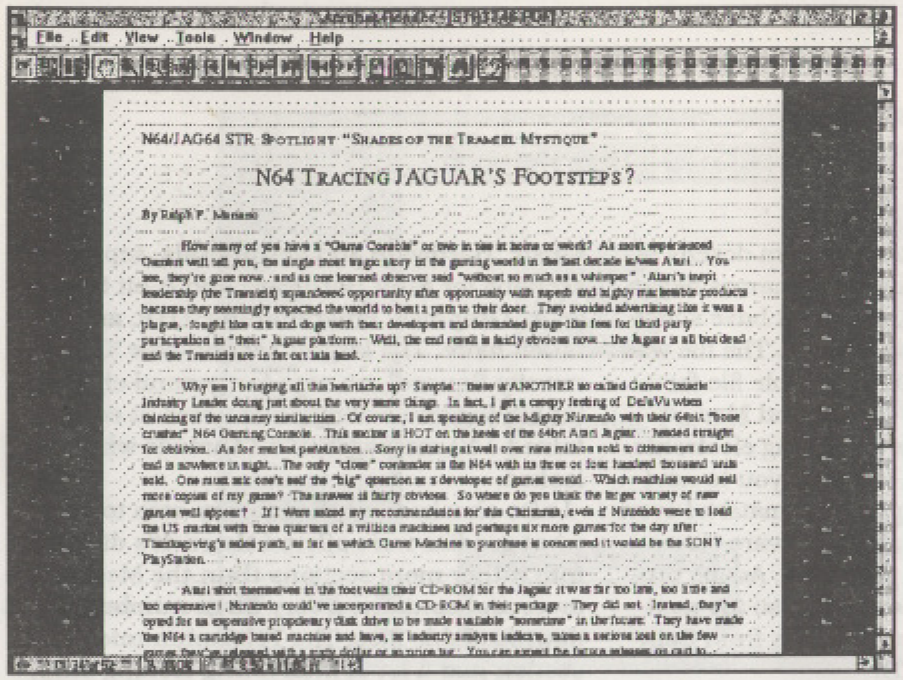
Fortunately, it was well worth the trouble. The STR file turned out to be the current week's issue of the Silicon Times Report, another on-line magazine of over 50 pages. It's published weekly and is jammed full of news and information from the world of computers. It's not Atari specific, but there were several small Atari related articles in it, including one which compares Nintendo's current behaviour with the way "Atari's inept leadership (the Tramiels) squandered opportunity after opportunity with superb and highly marketable products because they seemingly expected the world to beat a path to their door". Now where have I heard those sentiments before? The Acrobat format allows pictures and diagrams to be included in the document, so the whole thing looks very polished and professionally presented.

## ATARI ST PROD FORUM

The name of this forum is really the Atari Computing Forum - the name in the CompuServe directory was incorrect - and it covers all 8-bit and 16-bit machines. There are lots of Message sections, including Telecommunications, TOS and Emulators, MIDI/Music, Hardware and Peripherals, separate sections for 8-bit Hardware and 8-bit Software, Graphics, Programming, DTP, and much more. The largest section was "Community Square", an area for general chat and for buying and selling Atari items. It contained 142 messages in 52 threads when I looked.

I also checked out the Library area to see what goodies were offered there. It's divided into rather more sections than the Message area, and contains a very large number of downloadable files. The Telecommunications section had a lot of interesting looking stuff, including a fair amount of Internet access software for the ST. I didn't have time to fully investigate, but I noticed World Wide Web browsers and software to allow an ST to talk to the Internet via CompuServe - material here for a future article, perhaps? There were also general communications programs, fax programs, and BBS related material. There's plenty of basic information here too, for example a list of sites around the world from which you can download ST files using FTP (File Transfer Protocol). I'll be following this up later, too.

ST programmers should find much of interest in the Programming Tools section. This is packed with files, including such goodies as compilers for FORTRAN, C, Forth, and Assembler language. Complementing this is the Utilities section, which contains hundreds of programs like virus checkers, file compressors, backup/restore utilities, file format converters, print spoolers, graphics converters, etc. You could spend hours just browsing around this section. Similarly the Applications section - it includes masses of useful programs, patches for fixing various problems, and demos of commercial software. Then there's the Accs and Setups section, which contains dozens of other bits and pieces - clocks, calculators, alarms, screen-






*Extract from one of the Silicon Times Report articles, comparing Nintendo with Atari.*

grabbers, and so on.

For 8-bit fans the "8-bit Fun" section provides a treasure house of games, music files, music players, picture files, and lots more. Again, there are hundreds of files here and it would take a long time to explore them all, let alone download them. There's also an "8-bit Utilities" section containing hints and tips, hardware repair information, various utilities including PC-Atari and Atari-PC file transfer programs, and a world-wide directory of 8-bit resources. For the ST user there's the ST/Falcon Games section, once more containing hundreds of entries, including game maps and cheats.

There are also sections on MIDI/Music, Degas/Neo/Tiny picture files, Spectrum (containing lots of Spectrum 512 pictures), News/Reviews/Shows (which contained many of the same on-line magazines found in the Atari Gaming forum), and CAD3D/Cyber/Animation (holding lots of animation and 3D files). Finally there's a Miscellaneous section which acts as a "catch-all" for everything else, for instance lists of CD-ROMs you can use with an Atari, Atari specific CD-ROMs, monitor cable details, Star Trek information (!), and lots of other odds and ends.

## ATARI USERS NETWORK

What a disappointment this turned out to be! On entry it immediately displays a submenu which lists the two forums we've already looked at plus the Atari Vendors Forum. This last named was used by companies producing Atari software and hardware for supporting their products on-line. Selecting it took me to the forum OK, but I was greeted by a message about a year old saying that the forum was closing and all vendor support would henceforth be delivered through the Atari Computing Forum. I had a look inside anyway, and found sections for Michtron, Gribnif, Soft-Logik, and other respected Atari software and hardware companies, but most of the messages were ancient history. There was no Library area at all, so for all intents and purposes this forum is dead. It's strange that CompuServe have left its remains here after all this time.

So, overall it looks like there's still a fair amount of material on CompuServe for the Atari enthusiast, and there's still a loyal band of Atari fans using it. I wonder what the situation is like out on the Internet? Join me in the next issue to find out. ●



# contact ... contact ... contact ...

### FOR SALE

**8-BIT ITEMS:** 800XL, £25; 1050 disk drive, £25; Touch Tablet with AtariArtist software, £20; all plus p&p or £65 for all three inc. postage. Also software from 30p tapes, £2 disks. For list write to Mr D. Loughton, 34, Collindale Avenue, Erith, Kent DA8 1EE

### FOR SALE

**ST SOFTWARE:** Various ST software from 50p; Mag cover disks (PC/Amiga), 10 for £1.50 inc. postage or 25 for £3. For list write to Mr D. Loughton, 34, Collindale Avenue, Erith, Kent DA8 1EE

### WANTED

**DOS/ACTION!:** DOS and ACTION! cartridge, RAM cart (min. 128Kb with battery) and strategical softwares (Ardeny 1944 etc.). Write to Kecskemet, Imre, 1196 Budapest Jokai u. 143/A, Hungary

## FREE TO SUBSCRIBERS

The CONTACT column is free of charge to subscribers who wish to sell their equipment or contact other readers. Space is limited so we request that entries be kept as short as possible. Extremely long entries may be heavily edited or ignored. Send your CONTACT notice on a separate sheet of paper (not as part of a letter) to:

**CONTACT, PAGE 6 PUBLISHING, STAFFORD, ST16 1DR**

**FOR SALE ... WANTED ... PEN PALS ... ADVICE ... HELP**

# PROGRAM LISTINGS

Certain program listings which are too long to include in the magazine may be obtained free of charge as printed listings to type in. All programs are, however, included on the Issue Disk which is available with each issue. Remember this disk also includes BONUS PROGRAMS which do not appear in the magazine. If you would like the type-in listings please write or telephone indicating which listings you require. Please note that there are not necessarily extra listings for every magazine.

***Write to LISTINGS, NEW ATARI USER, P.O. BOX 54, STAFFORD, ST16 1DR or telephone 01785 241153***

# NAU INTERNET CONTACT LIST

The following is a list of NAU readers who'd welcome e-mail from other Atari users. If you'd like to be added to this list please drop me an e-mail note at the address shown.

| | | | |
|---|---|---|---|
| John S Davison | 100256.1577@compuserve.com | Derek Fern | 101755.2443@compuserve.com |
| Joel Goodwin | j.f.goodwin@reading.ac.uk | Gordon Hooper | ua558@freenet.victoria.bc.ca |
| Fred Meijer | pokeyfm@worldonline.nl | Ann O'Driscoll | annod@iol.ie |
| Allan Palmer | 100644.1040@compuserve.com | Paul Rixon | p_rixon@oscarfab.demon.co.uk |
| Brad Rogers | brad@pianosa.demon.co.uk | Henning Wright | kofta@algonet.se |
| Bryan Zillwood | b.j.zillwood@exeter.ac.uk | Michael Current | mcurrent@carleton.edu |